

Semi-annual Environmental Monitoring Report

Project Number: 43405-026

Reporting Period: January-June 2021

**GEORGIA: URBAN SERVICES IMPROVEMENT INVESTMENT PROGRAM
(TRANCHE 4)
(FINANCED BY THE ASIAN DEVELOPMENT BANK)**

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For: The Ministry of Regional Development and Infrastructure of Georgia and the Asian Development Bank

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Abbreviations

ABBREVIATIONS

ADB	Asian Development Bank
DC	Design Consultant
DEPP	Department of Environmental protection and Permit
PMD	Projects Management Department
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EHS	Environmental Health & Safety
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP/ SSEMP	Environmental Management Plan/ Site-Specific Environmental Management Plan
ES/ EMS	Environmental Specialist/ Environmental Monitoring Specialist
GoG	Government of Georgia
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
IPMO	Investment Program Management Office
USIIP	Urban Services Improvement Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MFF	Multi-tranche Financing Facility
MoEPA	Ministry of Environment Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
NEA	National Environmental Agency
SC	Supervision Consultant
UWSCG	United Water Supply Company of Georgia
WSS	Water Supply & Sanitation

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1. INTRODUCTION

1.1 Preamble

1. This report represents the Semi - Annual Environmental Monitoring Review (SAEMR) for “Urban Services Improvement Investment Program” (USIIP), Tranche 4 and describes the period of January-June 2021.
2. This report is the 11th Semi-Annual EMR for the T4 of USIIP.

1.2 Headline Information

3. During the reporting period, construction work was carried out under the JVA-01, POT-01, POT-02 and GUD-02 sub-projects and therefore this report describes the activities performed within the framework of these projects.
4. During the reporting period, there were no identified pending non-compliances, most of the problems identified during the site visit were eliminated by the contractor within the proposed time frame. Construction activities were not affected by the COVID-19 pandemic, there were no travel restrictions as well and the “Safage” EH&S specialist and the USIIP Environmental specialist monitored construction sites on a regular basis. Workers complied with all regulations, including social distancing from the COVID-19 pandemic.

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

5. The Urban Services Improvement Investment Program was developed as the Government's response to the lack of adequate and/or safe water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-tranche Financing Facility. The Ministry of Regional Development and Infrastructure is the Executing Agency and the "United Water Supply Company of Georgia", LLC is the Implementing Agency of the Investment Program. UWSCG is a 100% state-owned company.
6. The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, each providing improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network and, sewerage improvement works will include sewer network, pumping stations, main collectors and waste water treatment plants.
7. Tranche 4 of the Investment Program includes:
 - Construction of Water Supply System in Zugdidi (Zug 01 - Contract No: P43405-ICB- Zug-01)
 - Construction of Sewerage System in Poti (Pot 01 - Contract No: P43405-ICB-Pot-01)
 - Construction of Wastewater Treatment Plant in Poti (Pot 02 - Contract No: P43405- ICB-Pot-02)
 - Construction of Water Supply System in Jvari (Jvari 02- Contract No: P43405-DC- Jvari-01)
 - Construction of Sewage Collection and Water Supply System in Gudauri (UWSCG- ICB-GUD-02-2028-GUD-02)
8. **Construction of Water Supply System in Zugdidi (ZUG 01).** The project comprises of the construction of 1 water supply pumping station – 1,170 m³, construction of new reservoirs (3,300 m³x3); distribution network - laying of approximately 220 km water supply pipelines; approximately 15 km transmission main; wells - drilling of 10 drinking water wells.
9. The contract ZUG-01 was signed on October 26, 2015 with AS Inshaat-N, LLC(Azerbaijan), the construction works were completed in September 2018 and further extended until June 2020 due to the additional construction works under VO#4 and VO#8, including construction of additional sewage network, connection of residential houses to the main collector and Installation of additional sewage Pump Stations in Anaklia. Construction works currently are competed under ZUG-01 sub-project and therefore Post Construction Audit will be conducted during the next reporting period, July-December 2021 and main findings and recommendations of Audit report will be presented in the next SAEMR.

10. **Construction of Sewerage System in Poti (POT-01).** Pot-01 project includes the construction of 112.4 km of new sewerage pipes, and construction of 28 sewage pumping stations. United Water Supply Company of Georgia signed a contract with TAHAL Group BV on 20 December 2017. Contractual date finished on July 2020 and Contractor is continuing works under Delay Damages, In case of agreement with Employer and ADB potentially Contract can be finished by the December 2022.
11. **Construction of Wastewater Treatment Plant in Poti (POT-02).** The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 11,663 m³/day for Poti. The contract for construction of WWTP in Poti was signed on December 21, 2017 with JV “Pfeiffer - EMIT” comprised by “Ludwig Pfeiffer Hoch – and Tiefbau GmbH Co. KG (Germany)” and “EMIT Group – Ercole Marelli Impianti Tecnologici S.r.l. (Italy). Contractual date finished on August 2020 and Contractor is continuing works under Delay Damages, Potential completion of Contract can be considered end of December 2021.
12. **Construction of Water Supply System in Jvari (JVA-01).** The major works to be implemented for rehabilitation and improvement of Jvari water supply system are following: construction of wells on the well field near the village Lia; installation of about 4 km long transmission pipeline; replacement of distribution pipes in the town; rehabilitation of existing reservoir or construction of new one depending on results of detailed investigation; construction of new pump station.
13. The contract for implementation of JVA-01 was signed on January 17, 2017 with AS Inshaat–N, LLC(Azerbaijan). Contractual date finished on December 2019 and Contractor is continuing works under Delay Damages, Potential completion of Contract can be considered end of December 2021.
14. Construction of Sewage Collection and Water Supply System in Gudauri (GUD-02). The major works to be implemented for rehabilitation and improvement of Gudauri sewage collection and water supply system, including construction of well field, Raw Water Reservoir of 500m³, water pipes and sewage collection system.
15. The contract for implementation of GUD-02 sub-project was signed on 4 January 2019 with “China Nuclear Industry 23 Construction Co.” LTD (CNI23). The initial date of completion of the contract was April 2021 and further extended until the end of October 2021.
16. **Supervision Consultant for T4 of USIIP.** Supervision Consultant for Tranche 4 of USIIP is “SAFEGE France with Engineering Solution LLC Georgia”.

2.2 Project Contracts and Management

17. The main institutions that are involved in implementation of the EMP are UWSCG executing agency (EA), Supervision Consultant (SC) the Contractor and to a lesser extent the Ministry of Environment Protection and Agriculture (MoEPA).
18. Investment Program Management Office (IPMO) established within UWSCG is responsible for the day to day management of the project including implementation of the EMP. The IPMO have an Environmental Specialist who is responsible for management of the environmental aspects of USIIP.
19. The IPMO (Environmental Specialist) responsibilities in respect of implementation of the EMP are as follows:
 - (i) Approve the Site Specific Environmental Management Plan (SSEMP) before Contractor takes possession of construction site;
 - (ii) Monitor implementation of EMP and ensure the environmental safeguards compliance;
 - (iii) Review the updated IEE and/or SEMP and send it for clearance to ADB;
 - (iv) Ensure that contractors have access to the EMP and IEE report;
 - (v) Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website;
 - (vi) Review and approve the Corrective Action Plan and provide to ADB for review and comments if any;
 - (vii) Participate in public consultations during project implementation;
 - (viii) In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints;
 - (ix) Assist in organizing trainings for the Contractors in coordination with ADB/RETA consultant;
 - (x) Participate in external trainings in environmental management and environmental auditing
20. The SC include a full time Environmental Specialist to assist the IPMO supervise and monitor implementation of the EMP during construction.
21. The Contractor also appoints a full time Environmental specialist to be a senior member of the construction management team based on site for the duration of the contract. The ES shall have a university degree (preferably at Masters level) in Environmental Science or related discipline and have at least 10 years work experience in environmental management of infrastructure project
22. Department of Environmental Protection and Permits of UWSCG will work together with IPMO on addressing the Environmental Safeguard issues of USIIP sub-projects. More detailed description of implementation arrangements, responsibilities and staffing are provided in the Table 1 below.

Table 1: Institutionnel Arrangement, Responsibilities and Staffing

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
1	Environmental planning and management Contractors Environmental Management Plan (site-specific EMP)	Prepare Specific EMP (SEMP) with supplemented Topic Specific EMPs at pre-construction stage based on IEE/EMP Implement SEMP approved by IPMO.	Review and endorse the SEMP; Monitor implementation of SEMP on daily basis; Monitor monthly environmental monitoring reports or results prepared by the Contractor and report to IPMO.	Review and approve the SEMPs; Monitor implementation of EMP and ensure the environmental safeguards compliance.	Work together with IPMO on addressing the environmental non-compliance issues, if any.
2	Changes in design	Provide details of design changes to CSC required to update IEE/EIA, or SEMP; Implement updated SEMP.	Approve the design change to be submitted to IPMO; Make environmental assessment of the change and update the IEE and/or SEMP.	Review the updated IEE and/or SEMP and send it for clearance to ADB	Liaise with CSC in preparing updated IEE and/or SEMP; Upload the approved IEE/SEMP provided by IPMO to UWSCG website for Public Disclosure.
3	Unanticipated impacts	Inform CSC about unanticipated impact and follow the instructions received from IPMO.	Make environmental assessment of the unanticipated impact and update the IEE and/or SEMP	Review the updated IEE and/or SEMP and send it for clearance to ADB	Liaise with CSC in preparing updated IEE and/or SEMP

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
4	Reporting	Prepare monthly environmental monitoring reports and send it to CSC and IPMO	<ol style="list-style-type: none"> 1. Prepare inputs to environmental part of quarterly construction progress reports; 2. Prepare inputs to semi-annual environmental monitoring report (SAEMR) to be submitted to IPMO for further review, comments and improvement. 3. Conduct Post-Construction Final Environmental Audit and prepare final environmental audit report. 	<ol style="list-style-type: none"> 1. Finalize SAEMRs (and Final EMRs upon project completion), send it to ADB and address potential ADB's comments until SAEMR disclosure; 2. Provide ENG and GEO final versions of SAEMRs to be uploaded on UWSCG website. 	Upload the approved reports (ENG and GEO) provided by IPMO to UWSCG website for Public Disclosure
5	Permits and clearances	NA	NA	NA	Obtaining environmental permits and clearances
6	Non-compliances	Prepare a corrective action plan (CAP)	Assist contractor in preparing the CAP.	Review and approve the CAP and provide to ADB for review and comments if any.	
7	Public consultations	Participate in public consultations during project implementation	Organize public consultations: inform people about activities and prepare the record of consultations.	Participate in public consultations during project implementation	UWSCG & IPMO host PCs, CSC will present the topics related to environmental issues

#	Millstones/Actions	Contractor (Environmental Specialist)	Construction Supervision Consultant (Environmental Specialist)	IPMO (Environmental Specialist)	Environmental Protection and Permits Department (Environmental Specialist)
8	Grievance Redress Mechanism	Project site Focal person to record environmental grievances in the logbook and follow up with UWSCG established practice for grievance redress	<ol style="list-style-type: none"> 1. Ensure that grievances, if any, are being properly documented and addressed timely and effectively. 2. Assist IPMO to develop consolidated GRM database and consolidation of GRM cases both for ENV and Social safeguards 	In case of need assist IPMO Social/Resettlement Consultant in resolving process of environmental safeguards related complaints; Assist IPMO Social/Resettlement Consultant in GRM database consolidation and data analysis.	UWSCG maintains GRM applicable to all projects. UWSCG will ensure IPMO information on grievances is consolidated into the UWSCG grievances (both - environmental and social) without duplication.
9	Trainings	Attend on-site trainings organized by IPMO and ADB/RETA Consultant	Assist the IPMO in organization of trainings for the Contractors on environmental safeguards requirements.	Organize trainings for the Contractors in coordination with ADB/RETA consultant. Participate in external trainings in environmental management and environmental auditing	Participate in external trainings in environmental management and environmental auditing

23. During the reporting period, in May 2021, there were changes in the leadership of the UWSCG, Mr. Alexander Tevdoradze was appointed a new director of the company.
24. A list of main organizations involved in the USIIP/T4 and relating to environmental safeguards is presented in Table 2 below.

Table 2: List of Main Organizations under USIIP/T4

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Lender	Asian Development Bank	Country Environmental Focal	Ninette R. Pajarillaga E-mail: npajarillaga@adb.org
		Associate Safeguards Officer Georgia Resident Mission Asian Development Bank	Nino Nadashvili Tel: +995 595 070442 nnadashvili@adb.org
		ADB RETA International-Environmental Consultant	Keti Dgebuadze Tel: +995577232937 Kdgeuadze.consultnat@adb.org ketdgeb@yahoo.com
Borrower	UWSCG	UWSCG, Department of Environmental Protection and Permits, Head	Ms. Maka Goderdzishvili Tel: +995 599 229925 E-mail: m.goderdzishvili@water.gov.ge
		UWSCG/IPMO Department of Projects Management, Head	Ms. Ana Onashvili Tel: +995 599 692090 E-mail: ana.onashvili@water.gov.ge

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
Borrower	UWSCG/USIIP/T4	Environmental Specialist	Ms. Ketevan Chomakhidze Tel:+995 577 380309 E-mail: Chomakhidzek@yahoo.com
Supervision Consultant	SAFEGE (France) with Engineering Solution LLC (Georgia)	Environmental Specialist:	Mr. Shalva Bosikashvili Tel:+995 595116041 E-mail: sbosikashvili@yahoo.com
Contractor ZUG-01	AS Inshaat-N LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Nodar Usupishvili Tel:+995 577 68 16 71 E-mail: n.usupashvili@gmail.com
Contractor POT-01	TAHAL Group BV	Environmental H&S Specialist	Mr.Beka Khachidze Tel: +995 599 346 821 E-mail: r.kalandadze@yahoo.com
Contractor POT-02	JV "Pfeiffer - EMIT" comprised by "Ludwig Pfeifer Hoch – and TiefbauGmbH7Co. KG (Germany)" and "EMIT Group – ErcoleMarelliImpiantiTecnologiciS.r.l. (Italy)	Environmental Specialist H&S Specialist	Mr.Nikoloz Neparidze Tel: +995 599 346 821 E-mail: nikoloz.neparidze@ludwigpfeiffer.com
JVA-01	AS Inshaat-N LLC (Azerbaijan)	Environmental H&S Specialist	Mr. Nodar

Type of project participant	Name of Agency/Company	Environmental Staff	Name and contact details
			Usupishvili Tel:+995 577 68 16 71 E-mail: n.usupashvili@gmail.com
GUD-02	“China Nuclear Industry 23 Construction Co.” LTD (CNI23)	Environmental H&S Specialist	Mr. Aleksandre (Sasha) Mchedlishvili Tel: +995 574 02 77 33 E-mail alexandermchedlishvili1@gmail.com

2.3 Project Activities during Current Reporting Period

25. During the reported period construction activities were carried out under POT-01, POT- 02, JVA-01 and GUD-02 sub-Projects, therefore these sub-projects are reported in this Semi-annual EMR. Contractor intensified all activities to improve the progress of the works on sites. The Engineers gave processed frequent instructions to the Contractor for the planning and outstanding documents preparation which shall ensure steady improvement of the works progress.
26. Information about the construction work under USIIP/T4 during the reporting period - January-June 2021 is presented in the Table 3, Table 4, Table 5 and Table 6 below.

POT-02 Sub-project

27. The main activities under POT-02 sub-project during the reporting period is presented in the table 3 below:

Table 3: POT-02, Project Progress during the January-July 2021

POT-02		January-July 2021
Works undertaken during January-July 2021	Civil works for structures are completed 98%	During the reporting period was completed around 65% of

POT-02		January-July 2021	
	Mechanical and Electrical equipment arrived on site – 85%		civil works, including structures and installation of Mechanical equipment
	Mechanical equipment installation - 30%		

POT-01 Sub-project

28. The main activities under POT-01 sub-project carried out by contractor during the reporting period is provided in the table 4 below:

Table 4: POT-01, project progress during January-June 2021

HDPE PRESSURE PIPES PERFORMED ACTIVITIES	Completed Total (m)	Completed [%]	Width and Depth (Average) of Trench	Estimated Number of Days to Lay Pipes
	Ø 110 (mm) : 3603	4071.84		
Ø 140 (mm) : 790,00	642,8	81.36%	0.9 – 1.0m	0
@ 180 (mm): 480,00	480	100%	0.9 – 1.0m	0m
Ø 280 (mm) : 1094	1094	100%	0.9 – 1.0m	806m
Ø 315 (mm) : 935,00	736,7	78.8%	0.9 – 1.0m	0
Ø 355 (mm) : 4 272,00	3530.42	82.6 %	1.2m	0m
Ø 400 (mm) : 6,580,00	4889.83	74.3 %	1.2m	87.8m
Ø 630 (mm) : 820,00	814.3	99.3%	1.4m	0
TOTAL = 18 574	12188.05	65.6%		893.7m
HDPE GRAVITY CORRUGATED PIPE IN LINEAR METER				
Ø 150 (mm) : 37 500,00	21560.2	57.5%	0.9 – 1.0m	9206.3m
Ø 200 (mm) : 57 000,00	17850.7	31.3%	0.9 – 1.0m	5608.3m
Ø 300 (mm) : 38 000,00	27476.2	72.3 %	0.9 – 1.0m	11241.6m
Ø 400 (mm) : 1,643,00	135.7	8.2%	1.2m	24m
Ø 500 (mm) : 1,739,6	766	44%	1.35m	157.8m
TOTAL = 135,882,06	67788.8m	49.9 %		26238m
Manholes:	Contract	Completed Total	Total Competed	Executed During

HDPE PRESSURE PIPES PERFORMED ACTIVITIES	Completed Total (m)	Completed [%]	Width and Depth (Average) of Trench	Estimated Number of Days to Lay Pipes
			%	January-July 2021
Concrete DN 1000	1440 pcs	554 pcs	38.8%	173 pcs
HDPE DN 600	1300 pcs	559 pcs	43%	192 pcs
HDPE DN 400	3030 pcs	2402 pcs	79.3%	1151 pcs

JVA-01 Sub-project

29. The main activities under JVA-01 sub-project, carried out by contractor during the reporting period is provided in the Table 5 below:

Table 5. Project Progress during the January-July 2021 for JVA-01

Jvari Sites	Jvari Water Supply System Construction	
	Jvari Water Pipeline Network	
Jvari	Jvari Transmission Pipelines	Executed During January-July 2021
Works undertaken during January 2021- July 2021	<p>Executed January 2021 – July 2021. Total Completed %:</p> <p>OD DCI 300 SDR7.4 - 4200m was laid-1390 47%</p> <p>Reservoir:</p> <p>Civil works completed 95% (Was ongoing repair works and tightness test for reservoirs)</p> <p>Lia Well Field:</p> <p>Was ongoing repair works on Well Field houses.</p>	599.7m

GUD-02 Sub-project

30. The main activities under GUD-02 sub-project, carried out by contractor during the

reporting period is provided in the table 6 below:

Table 6: Project Progress during the January-June 2021 for GUD-02

GUD 02	Total Completed %	Executed During January-July-2021
Works undertaken during January 2021-June 2021	For GUD-02 Project was executed:	
	1. Installation of Corrugated Pipe D-200 – 19091 m (Out of 22000); - 87%	2909m
	2. Installation of Concrete Manhole D 1000– 1549m;- 92.8% 3. Installation of Concrete Manhole D 2000– 64m;- 11%	252m 39.5m
Works undertaken during January 2021-June 2021	4. Construction of Reservoir – 98 % (Civil Works and Pipe Connections)	During this period was executed all civil works (Reservoir, Guard House, Chlorination building and Chamber)
	5. Construction of Boreholes: N1Drilling - 100%: N2- 40% and N3-65%	Borehole N1-Pipe installation Borehole N2-Drilling 40m Borehole N3-Drilling 85m
	End of Project date is 30.06.2021.(Potentially will be extended up to October 2021)	

2.4 Description of Any Changes to Project Design

31. During the reporting period, no design changes were made to sub-projects under USIIP/T4.

2.5 Description of Any Changes to Agreed Construction methods

32. During the reporting period, no changes were made to the agreed construction methods for sub-projects under USIIP / T4.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

- 33.** Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis.
- 34.** Due to the coronavirus (COVID-19) outbreak in March 2020 and due to the fact that the World Health Organization (WHO) has declared the COVID-19 a global pandemic the Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) which applies to all sectors of economic activity.
- 35.** An Emergency Management Plan was developed by SC for preventions of employees against the COVID-19 (please see Annex H). Also Health and Safety Plans, as well Site-Specific Environmental Management Plans were updated by contractors.
- 36.** The General Guideline for COVID-19 was also developed specifically for the construction sector by the Government of Georgia (Please see Annex G of this report) as well.
- 37.** The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under POT-01, POT-02, GUD-02 and JVA-01 sub-projects.
- 38.** Environmental Monitoring Specialist hired under the JVA-01 sub-projects Mr. Nodar Usupishvili conducted the day-to-day monitoring of the construction sites, developed monthly monitoring reports and submitted to SC/Safege.
- 39.** Environmental Monitoring Specialist hired under the POT-01 sub-project by contractor Mr. Beka Khachidze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.
- 40.** Environmental Monitoring Specialist hired under the POT-02 sub-project by contractor Mr. Nikoloz Neparidze conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.
- 41.** Environmental Monitoring Specialist hired under the GUD-02 sub-project by contractor Mr. Aleksandre Mchedlishvili conducted the day-to-day monitoring of the construction sites, developed the monthly monitoring reports and submitted to SC/Safege.
- 42.** Environmental Monitoring Specialist of SC/Safege, Mr. Shalva Bosikashvili conducted monthly monitoring of project sites under T4 and developed Non-Conformance Notices where required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.
- 43.** Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs,

SEMPs, and other environmental commitments of the contractor. Prepare Non-compliance Notice were required developed Semi-Annual Environmental Monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.

44. In accordance with the requirements of IEEs, Contractor is required to undertake parametric measurements and observations on air quality and noise and socio-cultural resources. The monitoring guidelines were set as shown in the Table 7 below for JVA-01, POT-01, POT-02 and GUD-02 sub-projects.

Table 7: Parametric Measurement Guidelines

Parameters	Frequency & Location	Remarks	Statuses
JVA-01			
Impact on Flora and Fauna	Monthly, during the site Inspection and audit.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction	Completed
Cultural heritage Disturbance to cultural resources	Every time, along the alignment Archaeological & Cultural Properties	Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.	Completed
POT-01			
Air Quality	Every 6 months, across the sewerage network	Watering site during excavation works to avoid dust spreading Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³	Completed


Parameters	Frequency & Location	Remarks	Statuses
Noise	Every 6 months, Reservoir #1, Sewerage Network	Ensure that all equipment & vehicles used for construction activity are in good condition. Limiting working hours to 8 am – 6 pm.	Completed
Cultural heritage Disturbance to cultural resources	Every time, along the alignment Archaeological & Cultural Properties	Contractor shall put in place a protocol for conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved. Calling in the state archaeological authority if a find is suspected, and taking any action they require to ensure its removal or protection.	Completed
POT-02			
Air Quality	Every 6 months, Waste Water Treatment Plant construction site	Watering site during excavation works to avoid dust spreading. Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³	Completed
Noise	Every 6 months, Waste Water Treatment Plant construction site	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm	Completed


Parameters	Frequency & Location	Remarks	Statuses
Impact on Flora and Fauna	Monthly, during the site monitoring.	Avoid tree cutting In unavoidable cases, plant four trees of same species for each tree that is cut for construction	Completed
GUD-02			
Air Quality	Every 6 months, Waste Water Treatment Plant construction site	Watering site during excavation works to avoid dust spreading. Conduct measurements of Dusts Mg/m ³ ; CO Mg/m ³ ; NO ₂ Mg/m ³ ; SO ₂ Mg/m ³	Completed
Noise	Every 6 months, Waste Water Treatment Plant construction site	Ensure that all equipment & vehicles used for construction activity are in good condition Limiting working hours to 8 am – 6 pm	Completed
Topsoil	Monthly, during the site monitoring.	Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activities	Completed



3.2 Site Audits


45. Inspection and monitoring of construction sites were conducted under POT-01, POT-02, GUD-02 and JVA-01 sub-projects by ESs of UWSCG/USIIP and Safege. The schedule of Joint inspection and summary of audits carried out under POT-01, POT-02, JVA-01 and GUD-02 sub-projects are provided in the Table 8 below.


Table 8. Summary of site audits




Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
Continuously during reporting period (January-June 2021)	AS Inshaat-N LLC (Azerbaijan) JVA-01	EH&S Specialist of Contractor Mr. Nodar Usupishvili	Day to day monitoring of sites Compliance with Environmental and HES requirements	Poor housekeeping Safety issues on construction sites	Monthly Monitoring Reports	Completed on the monthly basis
22.06.2021		Environmental Specialist of SC Mr. Shalva Bosikashvili	Regular Monitoring of Sites	<p>Proper warning and safety signs should be provided at the perimeter of the construction site</p> <p>(Please see photo below and photo-documentations presented in ANNEX B of this report)</p> <p>Photo No1 (Construction of Water Supply Network)</p>  <p>Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion</p>	Verbal Instruction was given to contractor to improve the situation	Completed (30.06.2021) Completed (30.06.2021)





Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>of construction activates</p> <p>Photo No2 (Construction of water reservoir)</p> 		
Continuously during reporting period (January-June 2021)	<p>JV "Pfeiffer – EMIT" POT-02</p> <p>Coordinates of WWTP construction site: X 719287 Y 4675750</p>	EH&S Specialist of Contractor Mr. Nikoloz Neparidze	Day to day monitoring of sites. Compliance with Environmental and HES requirements	Poor housekeeping Safety issues on construction sites	Monthly Monitoring Reports	Completed on the monthly basis
12.01.2021		EH&S Specialist of Contractor Mr. Nikoloz Neparidze	Day to day monitoring of sites.	<p>All safety norms must be protected at the construction area (Workers should be equipped with full PPE). Please see photo below.</p> <p>Photo No1 (Construction of WWTP in Poti)</p>	Non- Compliance Notice Issued by contractor to sub-contractor (Please see Annex C)	Completed (15.01.2021)



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p>Construction area should be cleaned regularly, please see photo below Photo No2 (Construction of WWTP in Poti)</p> 		Completed 15.01.2021
25.01.2021		Environmental monitoring specialists of SC/Safege Mr. Shelve Bosikashvili	Regular monitoring of construction sites	<p>All types of waste should be removed daily and properly stored under shelter in buildings, waste and construction materials should not be mixed, please see photos of sites below, also in Annex B and Annex C of this report.</p> <p>Photo No1 (Construction of WWTP in Poti)</p>	Non- Compliance Notice Issued by Supervision Consultant to contractor (Please see Annex C)	Completed (30.01.2021)

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p data-bbox="1136 492 1472 716">Hard barriers at the deep excavations (more than 1.20m) should be Installed; arrange orange net or warning tape at the excavations lower than 1.20m</p> <p data-bbox="1136 751 1440 813">Relevant warning signs should be Installed</p> <p data-bbox="1136 849 1430 943">Heavy Equipment shouldn't work without Flagman</p>		<p data-bbox="1774 492 1942 553">Completed (29.01.2021)</p> <p data-bbox="1774 719 1942 781">Completed (29.01.2021)</p> <p data-bbox="1774 816 1942 878">Completed (29.01.2021)</p>
02.02.2021		Environmental monitoring specialists of SC/Safege Mr. Shelve Bosikashvili	Regular monitoring of sites	<p data-bbox="1136 984 1486 1179">Special training should be provided to the staff regarding housekeeping at the construction site and include this issue in daily Toolbox talks.</p> <p data-bbox="1136 1214 1444 1369">In case of working on height, more than 1,5m. workers must use protective anti-dumping equipment.</p>	Non- Compliance Notice Issued by Supervision Consultant (Please see Annex C)	<p data-bbox="1774 984 1942 1045">Completed (05.02.2021)</p> <p data-bbox="1774 1252 1942 1313">Completed (03.02.2021)</p>



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
17.03.2021		EH&S Specialist of Contractor Mr. Nikoloz Neparidze	Day to day monitoring of sites.	<p>All safety norms must be protected at the construction area (Workers should be equipped with full PPE). Please see photo below.</p> <p>Photo No1 (Construction of WWTP in Poti)</p>  <p>Construction area should be cleaned regularly</p>	Non- Compliance Notice Issued by contractor to sub-contractor (Please see Annex C)	Completed (20.03.2021)
06.04.2021		EH&S Specialist of Contractor Mr. Nikoloz Neparidze	Day to day monitoring of sites.	<p>All safety norms must be protected at the construction area (Workers should be equipped with full PPE).</p> <p>Construction area should be cleaned regularly, please see photo below</p> <p>Photo No1 (Construction</p>	Non- Compliance Notice Issued by contractor to sub-contractor (Please see Annex C)	Completed (10.04.2021)



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>of WWTP in Poti)</p> 		
28.05.2021		<p>Head, Department of Environmental protection and Permits, Ms. Maka Goderdzishvili</p> <p>Senior Environmental specialists of DEPP Ms. Liza Chovelidze</p> <p>Environmental specialists of USIIP Ms. Ketevan Chomakhidze</p> <p>Environmental monitoring specialists of SC/Safege Mr. Shalva Bosikashvili</p>	Monthly monitoring of construction sites	<p>Site internally should be arranged properly and cleaned regularly, including construction materials segregation, please see photo below</p> <p>Photo #1 (Construction of WWTP in Poti)</p>  <p>The contractor is required to instruct and train their workforce in the storage and handling of materials and chemicals that can potentially cause soil contamination Construction chemicals should be managed</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor (please see Annex C)</p>	<p>Completed, (03.06.2021) Please see Improved photo of site below</p> <p>Photo #1</p>  <p>Completed (03.06.2021). Please see improved photo of site below</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>property</p> <p>Photo #2 (Construction of WWTP in Poti)</p>  <p>Storage of all hazardous material to be safe, under strict control and clearly labelling all dangerous products</p> <p>There should be a special designated area for municipal and hazardous waste with concrete base, roofing and drainage system</p> <p>Photo #3 (Construction of WWTP in Poti)</p> 		<p>Photo #2</p>  <p>Completed 03.06.2021, please see improved photo of site below</p> <p>Photo #3</p> 


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>There are areas with a large amount of concrete mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately</p> <p>Photo #4</p> 		Completed (03.06.2021)
				<p>The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project</p> <p>Photo #5 (Construction of WWTP in Poti)</p> 		Completed (03.06.2021), please see photo below
				<p>Cable should be relocated to avoid any damages on users of power source</p>		Completed (04.06.2021)
				<p>Unsafe connection to the</p>		Completed (04.06.2021)






Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>power socket should be immediately improved</p> <p>Photo #6 (Construction of WWTP in Poti)</p>  <p>Top soil of about 15 cm depth shall be removed and stored separately in appropriate location and not damaged by improper storage of construction materials</p>		<p>Completed (04.06.2021), please see photo below</p> <p>Photo #5</p> 


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>The whole construction area should be fenced adequately</p> <p>Photo #7 (Fencing of WWTP in Poti)</p> 		<p>Completed (04.06.2021), please see photo below</p> <p>Photo #6</p> 
Continuously during reporting period (January-June 2021)	<p>TAHAL Group BV POT-01</p> <p>Coordinates: Kakulia Street</p>	Environmental H&S Specialist of Contractor Mr. Beka Khachidze	<p>Day to day monitoring of sites</p> <p>Compliance with Environmental</p>	Poor housekeeping Safety issues on construction sites	Monthly Monitoring Reports Environmental Monitoring Checklist filled	


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
	<p>42.13001, 41.68557</p> <p>Gamsakhurdia Street 42.13330. 41.68244</p>		and HES requirements			
03.02.2021	<p>Makalatia Street 42.13056. 41.68761</p>	Environmental Specialist of SC Mr. Shalva Bosikashvili	Monthly Monitoring of sites	<p>Site internally should be arranged properly and cleaned regularly. Please see photo below</p> <p>Photo No1 (Construction of Waste Water network in Poti)</p>  <p>All construction materials and wastes should be properly segregated and stored adequately</p> <p>Oil spill response kits should be placed at the appropriate locations. Please see photo below</p> <p>Photo No2</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor (please see Annex C)</p>	<p>Completed (05.02.2021)</p> <p>Completed (05.02.2021)</p> <p>Completed (05.02.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p>Refueling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention.</p> <p>Relevant traffic signs and flagmen should control traffic movement properly.</p> <p>PPE wearing is obligatory at the construction site</p> <p>Unsafe wiring and power generator without drip tray and grounding</p> <p>Photo No1 (Construction of Waste Water network in Poti)</p>		<p>Completed (05.02.2021)</p> <p>Completed (05.02.2021)</p> <p>Completed (03.02.2021)</p> <p>Completed (05.02.2021)</p> <p>Completed</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p data-bbox="1129 483 1476 540">Oil spills response kits should be available at site</p>		(05.02.2021)
30.04.2021		Environmental Specialist of SC Mr. Shalva Bosikashvili	Regular Monitoring of sites	<p data-bbox="1129 605 1451 699">Site internally should be arranged properly and cleaned regularly</p> <p data-bbox="1129 735 1461 862">All construction materials and wastes should be properly segregated and stored adequately</p> <p data-bbox="1129 898 1440 992">Oil spill response kits should be placed at the appropriate locations</p> <p data-bbox="1129 1027 1486 1154">Refueling station should be equipped with the spill kit and fire relevant fighting equipment</p> <p data-bbox="1129 1190 1478 1252">Drip tray should be used for fuel spillage prevention</p> <p data-bbox="1129 1287 1465 1382">Relevant traffic signs and flagmen should control traffic movement properly</p>	<p data-bbox="1512 605 1671 821">Verbal Instructions were given to contractor to improve the situation</p> <p data-bbox="1512 857 1671 1073">Non-compliance notice were issued to contractor (please see Annex C)</p>	<p data-bbox="1768 605 1940 667">Completed (02.05.2021)</p> <p data-bbox="1768 727 1940 789">Completed (02.05.2021)</p> <p data-bbox="1768 857 1940 919">Completed (03.05.2021)</p> <p data-bbox="1768 1052 1940 1114">Completed (02.05.2021)</p> <p data-bbox="1768 1214 1940 1276">Completed (10.05.2021)</p> <p data-bbox="1768 1312 1940 1373">Completed (05.05.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>PPE wearing is obligatory at the construction site</p> <p>Housekeeping issues, waste and construction items are mixed, uncontrolled and burned solid waste etc.</p> <p>Open trench without any barrier and warning tape</p> <p>Photo No1 (Construction of Waste Water network in Poti)</p>  <p>Unsafe wiring should be improved on construction site</p> <p>Photo No2 (Construction of Waste Water network in Poti)</p> 		<p>Completed (02.05.2021)</p> <p>Completed (02.05.2021)</p> <p>Completed (01.05.2021)</p> <p>Completed (02.05.2021)</p>



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>On Site operating personnel without appropriate PPE (unsafe distance to the operating backhoe)</p> <p>Photo No3 (Construction of Waste Water network in Poti)</p> 		Completed (02.05.2021)
19.05.2021		Environmental Specialist of SC Mr. Shalva Bosikashvili	Regular monitoring of construction sites	<p>Site internally should be arranged properly and cleaned regularly</p> <p>Housekeeping is not acceptable; burning all kind of waste is prohibited</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor and corrective actions were required to</p>	<p>Completed (22.05.2021)</p> <p>Completed (22.05.2021)</p>



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>Oil spill response kits should be placed at the appropriate locations</p> <p>Oil leakage from the truck</p> <p>Photo No2</p> 	<p>immediately improve the situation on sites under POT-01 sub-project</p>	<p>Completed (23.05.2021)</p> <p>Completed (22.05.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
24 May 2021		Environmental Specialist of SC Mr. Shalva Bosikashvili	Regular Monitoring of construction sites	<p>Electrical safety violation should be improved on site</p> <p>Unsafe house connection pits without barriers and warning signs</p> <p>Drainage channel contaminated with inert material and solid waste</p> <p>Backhoe has damaged the tree</p> <p>Photo No1 (Construction of Waste Water network in Poti)</p>  <p>Unsafe connection to the power socket</p> <p>Unsafe house connection pits without barriers and warning signs</p>		<p>Completed (28.05.2021)</p> <p>Completed (28.05.2021)</p> <p>Completed (28.05.2021)</p> <p>Completed (28.05.2021)</p> <p>Completed (28.05.2021)</p> <p>Completed (28.05.2021)</p> <p>Completed (28.05.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>Photo No2 (Construction of Waste Water network in Poti)</p>  <p>Drainage channel contaminated with inert material and solid waste</p> <p>Photo No3 (Construction of Waste Water network in Poti)</p>		<p>Completed (28.05.2021)</p>




Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
						
28 May 2021		<p>Head, Department of Environmental protection and Permits, Ms. Maka Goderdzishvili</p> <p>Environmental specialists of USIIP Ms. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p>	Monthly Monitoring of construction sites	<p>Construction activities information banners should be installed at each construction segment</p> <p>All residents and businesses should be informed about the nature and duration of any work well in advance so that they can make necessary preparations</p> <p>Wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required should be provided</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites (please see Annex C)</p>	<p>Completed (30.05.2021)</p> <p>Completed (30.05.2021)</p> <p>Completed (30.05.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>Photo No1 (Construction of Waste Water network in Poti)</p>  <p>Photo No2 (Construction of Waste Water network in Poti)</p>  <p>The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project</p> <p>Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activities</p>		<p>Completed (30.05.2021)</p> <p>Completed (31.05.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>Photo No3 (Construction of Waste Water network in Poti)</p>  <p>Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day.</p> <p>No trenches shall be kept open in the night/after work hours</p> <p>Photo No4</p> 		<p>Completed (30.05.2021)</p> <p>Completed (29.05.2021)</p>



Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population</p> <p>Photo No5 (Construction of Waste Water network in Poti)</p> 		Completed (30.05.2021)
				<p>Incorrect Surplus/waste soil management should be improved by utilizing surplus/waste soil for beneficial purposes such as backfilling or to raise the ground-level of low lying sites</p>		Completed (30.05.2021)
				<p>Nearby areas of resident houses should be clean from construction materials/surplus soil to avoid disturbance of</p>		Completed (30.05.2021)


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>residents and businesses</p> <p>Photo No6 (Construction of Waste Water network in Poti)</p> 		
Continuously during reporting period (January-June 2021)	<p>China Nuclear Industry 23 Construction Co., Ltd</p> <p>GUD-02</p> <p>Coordinates of Gudauri water reservoir: 38TO457008 4703113</p> <p>Gudauri Network 38TO457187 4702170</p>	Environmental H&S Specialist of Contractor Mr.Aleksandre Mchedlishvili	<p>Day to day monitoring of sites</p> <p>Compliance with Environmental and H&S issues</p> <p>Monthly Monitoring of construction sites</p>	<p>Site internally should be arranged properly and cleaned regularly.</p> <p>Minimize tree cutting on construction site, due to construction purposes.</p>	Prepare monthly monitoring reports	Completed on the monthly basis


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
4 June 2021		<p>Head, Department of Environmental protection and Permits, Ms. Maka Goderdzishvili</p> <p>Environmental specialists of USIIP Ms. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental H&S Specialist of Contractor Mr. Aleksandre Mchedlishvili</p>	Monthly Monitoring of construction sites	<p>Construction site should be properly fenced from all sides and equipped with lockable gate</p> <p>Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory</p> <p>Photo No1 (Construction of Water Reservoir in Gudauri)</p>  <p>Site internally should be arranged properly and</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites (please see Annex C)</p>	<p>Completed 01.07. 2021 Please see photo below</p> <p>Photo #1</p>  <p>Completed (01.07. 2021) Please see photo below Photo #2</p>  <p>Completed (10.06.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>cleaned regularly, including construction materials segregation</p> <p>Photo No2 (Construction of Well Fields in Gudauri)</p>  <p>Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activities</p> <p>Top Soil should be stored properly and better managed (height 2-3 meter, slope 45 degree)</p> <p>Photo No3 (Construction of Water Supply network in Gudauri)</p>		<p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p>Safety norms during working at height (ladder safety norms) should be provided at sight</p> <p>Fuel and lubricants spill elimination items (sand, sawdust, special containers) at the construction site</p> <p>The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project</p> <p>Photo No4 (Construction of Water Supply network in Gudauri)</p>		<p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p>The contractor is required to instruct and train their workforce in the storage and handling of materials and chemicals that can potentially cause soil contamination</p> <p>Construction chemicals should be managed property</p> <p>Photo No5 (Construction of Water Reservoir in Gudauri)</p>  <p>Storage of all hazardous material to be safe, under strict control and clearly</p>		<p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p>


Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>labelling all dangerous products</p> <p>There should be a special designated area for municipal and hazardous waste with concrete base, roofing and drainage system</p> <p>Hazardous Waste container with relevant indication sign should be installed at the construction area (at the proper organized place with concrete floor and roofing)</p> <p>Photo No6 (Construction of water Supply network in Gudauri)</p>  <p>Workers always should use complete PPE, including helmets</p> <p>Wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required should</p>		<p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p> <p>Completed (10.06.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>be provided</p> <p>Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population</p> <p>There are areas with a large amount of concrete mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately</p> <p>Photo No7 (Construction of well field in Gudauri)</p>  <p>Cable should be relocated to avoid any damages on users of power source</p> <p>Unsafe connection to the power socket should be immediately improved</p> <p>After completion of construction works, proper reinstatement should be ensured</p>		<p>Completed (11.06.2021)</p> <p>Completed (09.06.2021)</p> <p>Completed (10.06.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
10 June 2021		<p>Head, Department of Environmental protection and Permits, Ms. Maka Goderdzishvili</p> <p>Environmental specialists of USIIP Ms. Ketevan Chomakhidze</p> <p>Environmental Specialist of SC Mr. Shalva Bosikashvili</p> <p>Environmental H&S Specialist of Contractor Mr. Aleksandre Mchedlishvili</p>	Monitoring of the corrective action plan	<p>Construction sites should be equipped with Covid-19 prevention facilities, including information banners and first aid kits.</p> <p>An HSE specialist should be constantly present on site to ensure compliance of all HSE requirements on a daily basis.</p> <p>Bio toilets should be installed for workers at all sites.</p> <p>Construction site should be properly fenced from all sides and equipped with lockable gate Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory</p> <p>Photo No1 (Construction of Water Reservoir in Gudauri)</p>	<p>Verbal Instructions were given to contractor to improve the situation</p> <p>Non-compliance notice were issued to contractor and corrective actions were required to immediately improve the situation on sites (please see Annex C)</p> <p>Environmental Safeguard Training was conducted by SC/Safege, Mr. Shalva Bosikashvili and USIIP environment</p>	<p>Not completed yet, as the deadline for revision is July 2021, improved photos will be presented in the next semi-annual EMR, July-December 2021.</p> <p>Completed (15.06.2021)</p> <p>Completed</p> <p>Completed (15.06.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				 <p>Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activities</p> <p>Top Soil should be stored properly and better managed (height 2-3 meter, slope 45 degree)</p> <p>Safety norms during works at the height should be respected to avoid workers damage</p> <p>Special equipment during working at heights should be used</p> <p>Ladder safety norms should be ensured. Proper ladders should be installed in every case</p>	<p>al Specialist Ms.Kate Chomakhidze (training photos are provided in Annex B, signed list of participants are provided in ANNEX I)</p>	<p>Not completed yet, as the deadline for revision is July 2021, improved photos will be presented in the next semi-annual EMR, July-December 2021.</p> <p>Completed (15.06.2021)</p> <p>Completed (15.06.2021)</p> <p>Completed (15.06.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>municipal and hazardous waste with concrete base, roofing and drainage system</p> <p>Hazardous Waste container with relevant indication sign should be installed at the construction area (at the proper organized place with concrete floor and roofing)</p> <p>Construction waste should be removed timely and proper disposed</p> <p>Photo No4 (Construction of Water Reservoir in Gudauri)</p>  <p>Wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required should be provided</p>		<p>Completed (15.06.2021)</p> <p>Completed (15.06.2021)</p> <p>Completed (15.06.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				<p>Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population</p> <p>Photo No5 (Construction of Water Reservoir in Gudauri)</p>  <p>There are areas with some amount of concrete still left on construction site which is mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately</p> <p>Adequate graveling of the construction site should be ensured</p> <p>After completion of construction works, proper reinstatement should be ensured (surplus soil should</p>		<p>Partially Completed, additional instructions are given to contractor to improve the situation and sent improved photos of sites</p> <p>Completed (18.06.2021)</p> <p>Completed (05.07.2021)</p> <p>Completed (10.07.2021)</p>

Date of Visit	Name of Company	Auditors Name	Purpose of audit	Summary of any Significant Findings	Cross Reference to Audit Report	Status of implementation
				be removed and the area should be restored with topsoil) on private and agricultural land.		

3.3 Issues Tracking (Based on Non-Conformance Notices)

46. The contractors EHS performance are always reviewed by Supervision Consultant and IPMO. Necessary actions are undertaken when contractors are not in conformance and the EH&S issues.
47. Non-Compliance Notices have been observed during the site visits under POT-02, POT-01 and GUD-02 sub-projects. The contractors were always informed on the detected non-conformances and were demanded to improve on the deadline set and send CAP and/or photos of improvements. Environmental team of SAFEGE and UWSCG/USIIP monitored the improvements during the next monitoring visits. All Non-conformance Notices issued during the reporting period is presented in ANNEX C of this Semi-Annual EMR.
48. In case that the contractor did not make any improvements within the indicated deadline, IPMO / PIU always held additional meetings and discussions with contractors and Safege on how to correct the non-compliances. There are only a few (six) issues that have not yet been resolved during the reporting period, which are presented in the table 24 of this report. Since the deadline for improvements of above issues are set for the first half of July 2021, the main findings will be reflected in the next semi-annual EMR, July-December 2021.
49. A summary of the identified environmental issues under POT-02, POT-01, JVA-01 and GUD-02 sub-projects for January-June 2021 is presented in Table 9, 10, 11 and 12 below.

Table 9: Summary of Issues Tracking Activity for Current Period - POT-02

Total Number of Issues for Project	24
Issues Opened This Reporting Period	1
Issues Closed This Reporting Period	23
Percentage Closed	96%

50. As it is presented in table 9 above, only one issues is still opened under POT-02 sub-project, which will be improved during the mid of July 2021 and improved photos of sites will be presented in the next Semi-annual EMR, July-December 2021, th issue is as following: (i) The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project

Table 10: Summary of Issues Tracking Activity for Current Period - JVA-01

Total Number of Issues for Project	2
Issues Opened This Reporting Period	0
Issues Closed This Reporting Period	2
Percentage Closed	100%

51. As it is presented in table 10 above, there is no opened issues during this reporting period under JVA-01 sub-project, since all non-compliance identified during the reporting period were improved by contractor within the indicated deadline.

Table 11: Summary of Issues Tracking Activity for Current Period - POT-01

Total Number of Issues for Project	44
Issues Opened This Reporting Period	3
Issues Closed This Reporting Period	41
Percentage Closed	93%

52. As it is presented in table 11 above, three issues are still opened under POT-01 sub-project, which will be improved during the mid of July 2021 and improved photos of sites will be presented in the next Semi-annual EMR, July-December 2021, these issue are as following: (i) Wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required should be provided ; (ii) All construction materials and wastes should be properly segregated and stored adequately; (iii) Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).

Table 12: Summary of Issues Tracking Activity for Current Period - GUD-02

Total Number of Issues for Project	40
Issues Opened This Reporting Period	2
Issues Closed This Reporting Period	38
Percentage Closed	95%

53. As it is presented in table 12 above, two issues are still opened under GUD-02 sub-project, which will be improved during the mid of July 2021 and improved photos of sites will be presented in the next Semi-annual EMR, July-December 2021, these issue is as following: (i) Top soil of about 15 cm depth should be removed and stored separately in

appropriate location and reinstated after completion of construction activates; (ii) Construction sites should be equipped with Covid-19 prevention facilities, including information banners and first aid kits.

3.4 Trends

54. To identify trends in environmental issues, information from previous Semi-Annual EMR (July-December 2020) is used. The summary of the issues is provided in the Table 13 below.

Table 13: Summary of identified trends in environmental issues

Semi-Annual EMR No	Total No of Issues	% issues Closed	% issues closed late
July-December 2020	76	70%	30%
January-June 2021	110	96%	4%

55. Most of the non-compliances were eliminated by the contractors within the specified time frame within the sub-projects POT-02, POT-0, JVA-01 and GUD-03. The required actions and deadline to improve the remaining inconsistencies are presented in table 24 below.
56. The UWSCG Department of Environment protection and Permits (DEPP) and its USIIP Environmental Specialist, Ms. Kate Chomakhidze, as well as IPMO / UWSCG had always discussed the inconsistencies and findings presented in Table 8 above with the contractor. In some cases, this has led to meetings to discuss non-compliances identified during the site visit and mitigation measures that need to be implemented immediately.
57. In cases contractor does not improve the situation to 100% on the sites within the proposed time frame, additional meetings and discussions will be held by UWSCG and SC. All improvements will be duly reflected in the next SAEMR July-December 2021.

3.5 Unanticipated Environmental Impacts or Risks

58. During the reporting period, COVID-19 is viewed as an unanticipated impact and risk to the community and workers, however, IPMO, SC and CC have taken all appropriate measures to minimize this risk. These measures, inter alia, included updating the relevant SEMP by the contractor, developing emergency management plan by SC, etc. More details are provided in paragraphs 36-38 above.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

59. During the reporting period Environmental measurements of Noise level and Ambient Air Quality were carried out by contractor only under Pot-02 sub-project.
60. Noise and air pollution standards defined by IFC/WHO 1999, are presented in the Table 14 and 15 below.

Table 14: Noise Level Guidelines

Noise Receptor	dBA National Regulations		dBA WHO	
	Daytime 07:00 - 22:00	Nighttime 22:00 - 07:00	Daytime 07:00- 22:00	Nighttime 22:00- 07:00
Residential; institutional; educational	55	45	55	45
Industrial; commercial	70	70	70	70

61. Air pollution standards by IFC/WHO 1999, are presented in the Table 15 below.

Table 15: Air pollution Guidelines

Contaminants	IFC/WHO Guideline Value (Limit mg/m ³)	
	1	2
Inorganic dust		(*IFC does not have a standard for "inorganic dust". Instead IFC applies standards for PM2.5 and PM10). PM10 – 0,02/1 Year 0,05/24 Hour PM2,5-0,01/1 Year 0,025/24 Hour
Carbonic monoxide		n/a
Nitrogen dioxide (NO ₂)		0,2/ 1Hour 0,04/1Year
Aldehyde		n/a

62. Environmental quality measurements of noise level and ambient air quality under POT-02 sub-project was conducted by the National Environmental Agency of the Ministry of Environmental Protection and Agriculture of Georgia on 7 April 2021 (See Table 16 below and Annex A). The next monitoring measurements will be conducted in September 2021 and results will be reflected in the next July-December 2021 EMR.
63. According to data received in April 2021 noise and Air pollution level doesn't exceeds the standards of the National Regulations and World Health Organization (IFC/WHO),1999 under POT-02 sub-project and therefore no additional mitigation measures are required. IFC/WHO standards for Noise and Air pollution are presented in Tables 14 and 15 above. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 13:30 pm to 17:00 pm and no complaints were received from the local population about the noise during the reporting period.

Table 16: Environmental Quality Monitoring Measurement of Noise and Air Quality, POT-02

N	Place of measurement	Coordinates	Results				
			Dusts Mg/m3	CO Mg/m3	NO2 Mg/m3	SO2 Mg/m3	Noise dBA (MAX) (1-hour)
	National Environmental Standard (Maximum Permissible Level)		0,5	5,0	0,2	0,5	55 Residential; Institutional; Educational 70 Industrial; commercial
1	Poti WWTP	X 719287 Y 4675750	0.045	0.16	0.182	<0.1	51.4

64. Environmental quality measurements of noise level and ambient air quality under GUD-02 sub-project were conducted by the Ltd. NASETO Group on 22 March 2021 (See Table 17, Table 18 below and Annex A). The next monitoring measurements will be conducted in September 2021 and results will be reflected in the next Semi-annual EMR, July-December 2021.
65. According to data received in March 2021 noise level in some cases exceeds the standards of the National Regulations and World Health Organization (IFC/WHO),1999 under GUD-02 sub-projects and therefore additional mitigation measures which are presented in the table 24 below are required (please see IFC/WHO standards for Noise and Air pollution in Tables 14 and 15 above). It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 12:00 pm to 16:30 pm and no complaints were received from the local population about the noise during the reporting period. The distance from the construction sites to the nearest residential houses is more about 200-500 m.

Table 17: Environmental Quality Measurements, GUD-02 (Noise, Vibration)

Measurement point		Measurement results							
Location	Coordinates	Noise Max. dBA (MAX) (1 hour)	Vibro Speed		Vibro Acceleration		Dust mg/m ³		
			m/s ²		db		PM _{2.5}	PM ₁₀	Total
Gudaury Pumping Station	38TO458893 4702408	44,8	<0,1	<66	<0,1	<100	0,013	0,015	0,021
Gudaury Reservoir	38TO457008 4703113	53,4	<0,1	<66	<0,1	<100	0,027	0,032	0,042
Gudaury Track	38TO457187 4702170	69,8	0.1	66	0,1	100	0,036	0,041	0,069

Table 18: Environmental Quality Measurements, GUD-02 (Air Pollution)

Measurement Point		Measurement Results mg/m ³			
Location	Coordinates	Nitrogen dioxide	Sulfur dioxide	Carbon monoxide	Total Hydrocarbon
Gudaury Pumping Station	38TO458893 4702408	0,004	<0,01	0,15	<0,1
Gudaury Reservoir	38TO457008 4703113	0,002	<0,01	0,19	<0,1
Gudaury Track	38TO457187 4702170	0,011	<0,01	0,52	<0,1

66. During the reporting period, environmental quality measurements were not carried out within the framework of JVA-01 subprojects, as construction activities included only a small amount of earthworks and none of the activities under the sub-project had a potential to generate significant noise and air pollution, as there were no sensitive receptors in the proximity of the construction sites (approximately 1km). Also construction activities did not involve high noise/vibration generating activities like pile-driving or rock cutting. Notwithstanding the above, ES UWSCG / USIIP asked SC to issue a non-compliance notice to the contractor to ensure that environmental quality measurements are carried out during the construction works and provide the measurement data to UWSCG.
67. Environmental quality measurements of noise level and ambient air quality under POT-01 sub-project was conducted by the National Environmental Agency of the Ministry of Environmental Protection and Agriculture of Georgia on 1 April 2021. The next monitoring measurements will be conducted in September 2021 and results will be reflected in the next July-December 2021 EMR.
68. The air quality indicator parameters measured in the project area under POT-01 sub-project included: CO, SO₂, NO₂, PM_{2.5} and PM₁₀. Measurements for air quality were taken as a background reading with equipment off. Second and third readings were taken in 10-meter

and 20-meter radius from the working equipment, when the equipment was under heavy load.

69. The results of the air quality measurements are given in the table 19 below. The values were calculated as an average of 3 separate measurements done in one hour, every 20 minutes, during working equipment's heavy load.
70. According to the data obtained in April 2021, the level of air pollution exceeds national environmental standards in one parameter, more specifically, the level of CO in Makalatia Street under the POT-01 subproject is higher than the permissible level, and therefore the additional mitigation measures presented in Table 24 below are required. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 13:30 pm to 17:00 pm and no complaints were received from the local population.

Table 19: Air Quality Measurement Results, POT-01

Locations	CO - mg/m ³ (Background)	SO ₂ - mg/m ³ (Background)	NO ₂ - mg/m ³ (Background)	PM _{2.5} , PM ₁₀ - mg/m ³ (Background)
National Environmental Standards	5.0	0,5	0,2	PM _{2.5} - PM ₁₀ - 0,5/24 Hour
Kakulia Street Coordinates: 42.13001, 41.68557	0.6	0.00	0.001	0.001, 0.007
Gamsakhurdia Street Coordinates: 42.13330. 41.68244	0.00	0.00	0.00	0.001, 0.001
Makalatia Street Coordinates: 42.13056. 41.68761	0.00	0.00	0.001	0.063, 0.071
At the location	CO (Equip. ON)	SO ₂ (Equip. ON)	NO ₂ (Equip. ON)	PM _{2.5} , PM ₁₀ (Equip. ON)
Kakulia Street	4.4	0	0.035	0.024, 0.029
Gamsakhurdia Street	0	0	0.037	0.013, 0.029
Makalatia Street	6.6	0	0.071	0.013, 0.017
(10 meters)	CO (Equip. ON)	SO ₂ (Equip. ON)	NO ₂ (Equip. ON)	PM _{2.5} , PM ₁₀ (Equip. ON)
Kakulia Street	1.6	0.00	0.033	0.029, 0.026
Gamsakhurdia Street	0.00	0.00	0.043	0.012, 0.014

Makalatia Street	3.8	0.00	0.053	0.084, 0.087
(20 meters)	CO (Equip. ON)	SO₂ (Equip. ON)	NO₂ (Equip. ON)	PM_{2.5}, PM₁₀ (Equip. ON)
Kakulia Street	6.1	0.00	0.049	0.012, 0.013
Gamsakhurdia Street	0.00	0.00	0.033	0.001, 0.001
Makalatia Street	1.00	0.00	0.046	0.081, 0.083

- 71.** Environmental quality measurements of Noise under POT-01 sub-project was carried out in the same location as air pollution and are presented in the Table 20 below. The monitoring results are as follows: at Kakulia Street near the machinery, where the noise is the most intense, 76 dBA was recorded. After moving away from the working machinery it decreased to 67 dBA. It should be noticed, that apart from this machinery, almost nothing caused the noise because the transport was not noticed while being there. Inside the houses, the noise was not as intense as outside and it was 30 dBA.
- 72.** At Gamsakhurdia Street, at the location where the machinery worked, the noise was 75 dBA. In 10-20 meters, it reduced to 66-61 dBA. At Amiranashvili Street, only 1 water pump was working.
- 73.** At Makalatia Street, near the machinery, (only one Water pump was on), the noise was 83 dBA. When moving a little far from the location, the noise was decreasing to 63 dBA and then to 54 dBA.
- 74.** As it was mentioned above according to data received in April 2021 noise level in some cases exceeds the standards of the National Regulations and World Health Organization (IFC/WHO),1999 (please see Table 15 above) under POT-01 sub-projects and therefore additional mitigation measures which are presented in the table 24 below are required. It should be noted also that measurements carried out at construction sites, were temporary and conducted during the daytime from 12:00 pm to 16:30 pm and no complaints were received from the local population about the noise during the reporting period. The distance from the construction sites to the nearest residential houses is more about 200-500 m.

Table 20: Noise Level Measurement Results, POT-01

Location	Coordinates	Distance from noise source, m	Calculation level of the noise Average value - dBA
Kakulia Street	42.13001, 41.68557	10	76
		20	67
Gamsakhurdia Street	42.13330. 41.68244	10	66
		20	61
Makalatia Street	42.13056. 41.68761	10	63
		20	54

75. Vibration of the equipment was measured at different points. The vibration acceleration of the water pump on its own, vibration acceleration of the ground in 10 and 20-meter radius from the working equipment (e.g - 1 water pump, 1 excavator, 1 BobCat) was measured. All pump motors showed the vibration acceleration and velocity in the similar range: 15.2 – 20.1 m/s² and 7.4 – 9.8 mm/s respectively. The vibration from the pumps was directly taken from its' motors. The vibration acceleration was measured in 10 and 20-meter radius from the pump and other equipment working simultaneously. Vibration of the pump and equipment was not transferred to the ground and the distance of vibration transfer was lost in less than 10-meter radius from working equipment and machinery.

4.2 Trends

76. All mitigation measures identified within the POT-01, POT-02 and JVA-01 projects are effective and no additional measures are required.

4.3 Summary of Monitoring Outcomes

77. The noise and air pollution levels during the construction period under the POT-01 subproject and the noise levels under the GUD-02 subproject exceed the existing IFC / WHO standards and national regulations, and therefore additional mitigation measures are required, which are presented in Table 24 of this report.

4.4 Material Resources Utilization

4.4.1 Current Period

78. The material resources utilized by contractor - JV "Pfeiffer – EMIT", under POT-02 sub-project during the reporting period – January-June 2021 is provided in the Table 21 below.

Table 21: Material Resources Utilization under POT-02 Sub-project, January-June 2021

N		Monthly	Measurement
1	Consumption of Drinking Water	570	LT
2	Consumption of technical Water	5	T

79. There is no information on material resources used during the reporting period under the POT-01 and GUG-02 sub-projects from the contractors despite numerous written and oral instructions and requests issued by Environmental Consultant of UWSCG / USIIP. SC is strongly requested to issue non-compliance notice to contractors under JVARI-01 and GUD-02 sub-projects on the above matter. The UWSCG will receive this information and present them in the SAEMR of the next reporting period, July-December 2021.

4.4.2. Cumulative Resource Utilization

N/A

4.5 Waste Management

4.5.1 Current Period

80. At the construction sites of JVA-01, POT-01, POT-02 and GUD-02 sub-projects, there are mainly produced household, construction (inert, surplus soil) and hazardous waste. Mainly household waste is collected in municipal containers which are served by the local cleaning service. There is need of routine organization and cleaning of sites. Contractors always have separate containers for household and hazardous waste with proper labeling at the construction site.
81. The construction waste that is allocated at the construction site is removed for its final disposal that is managed by formal agreement with local municipality.
82. The waste generated under POT-02 sub-project during the reporting period is provided in the table 22 below.

Table 22: Waste Generated under POT-02 sub-project, January-June 2021

N		Monthly	Measurement
1	Disposal of Household waste	6	M ³
2	Hazardous waste in storage	200	M ³

4.5.2 Cumulative Waste Generation

N/A

4.6 Health and Safety

4.6.1 Community Health and Safety

83. No community incidents have been reported to SC during reporting period under POT-01, POT-02, and JVA-01 and GUD-02 sub-projects.
84. Relevant measures are undertaken for COVID-19 prevention at construction sites, more detailed information is provided in the Paragraphs 33-36 above.

4.6.2 Worker Safety and Health JVA-01

85. Environmental H&S Manager of JVA-01 sub-project Mr.Nodar Usupishvili was performing day-to-day monitoring of sites, according to EH&S standards and by requirements of UWSCG and SC/SAFEGE and providing relevant reports on a regular basis taking into account any recommendations given by SC/UWSC.
86. EH&S issues which were covered during the reporting period are as follows:
 - PPE;
 - Ground works;
 - Manual works;
 - Upgrade Safety Hard and Warning Barricade

87. No workers incidents have been reported during reporting period under JVA-01 project, which may be resulted in Health and Safety problems.

4.6.3 Worker Safety and Health GUD-02

88. Environmental H&S Manager of GUD-02 sub-project Mr. Aleksandr Mchedlishvili was performing every day monitoring of construction sites, including supervision of ongoing works according to EH&S standards.

89. Health & safety and environment issues which were covered during the reporting period are as follows:

- PPE;
- Reinforcement;
- Ground works;
- Manual works;
- Dust and Noise Measurements
- Upgrade Safety Hard and Warning Barricade

90. Contractor under GUD-02 sub-project was working on compilation of statistics information (incidents, near misses, trainings) during reporting period. No workers incidents have been reported during reporting period under GUD-02 sub-project.

91. The following Near-Misses were reported by SC under GUD-02 sub-project, which may be resulted in Workers' Health and Safety problems:

- Workers always should use complete PPE to avoid accidents
- In case of working on height, more than 1,5m. workers must use protective anti-dumping equipment
- Wooden materials should be cleaned of nails, and construction materials should be stored properly so as not to damage workers.

4.6.4 Worker Safety and Health POT-02

92. Environmental H&S Manager of GUD-02 sub-project Mr. Nikoloz Neparidze was performing every day monitoring of construction sites, including supervision of ongoing works according to EH&S standards.

93. Health & safety and environment issues which were covered during the reporting period are as follows:

- PPE;
- Working on height;
- Reinforcement;
- Ground works;

- Manual works;
 - Removal waste;
 - Installation and dismantle formwork
 - Induction all visitors
 - Dust and Noise Measurements
 - Upgrade Safety Hard and Warning Barricade
- 94.** During the reporting period, contractor “PFEIFFER” reported two “Near Misses” under POT-02 sub-project about workers to be protected when working at height. The aforementioned “Near Misses” are presented in Appendix E to this report.
- 95.** The first near missis was reported on 1 February 2021 at approximately 10:00 AM. The incident report concerned a worker of sub-contractor “TMP Construction LLC” who climbed in the improper scaffolding construction without any health and safety protection. The approximate height of the building was 4 meters.
- 96.** Another Near Missis was reported on 8 February 2021 at 12:05 about the worker who climbed on construction without safety protections at approximate height of building of 3 meter.
- 97.** The subcontractor was promptly informed of the aforementioned accident and was urged to ensure that all workers were trained and informed about safe works at height on a daily basis and to ensure that all workers are equipped with appropriate protective equipment while working at height, depending on the type and height of the scaffold used, which may include a helmet and height belts, as well as an independent fastening.

4.6.5 Worker Safety and Health POT-01

- 98.** Environmental H&S Manager of GUD-02 sub-project Mr. Beka Khachidze was performing day-to-day monitoring of construction sites, including supervision of ongoing works according to EH&S standards.
- 99.** Health & safety and environment issues which were covered during the reporting period are as follows:
- PPE;
 - Ground works;
 - Manual works;
 - Removal waste;
 - Installation of pipes;
 - Induction all visitors
 - Upgrade Safety Hard and Warning Barricade

- 100.** During the reporting period, within the framework of the POT-01 sub-project, no near-misses forms have been filed. SC and UWSCG / USIIP requested from contractor to adequately fill

the near-misses forms and reflect in their monthly monitoring reports.

4.7 Training

- 101.** Environmental and social safeguard training was performed under GUD-02 sub-project by Environmental Specialist of SC/Safege Mr. Shalva Bosikashvili, ES of UWSCG/USIIP Ms. Ketik Chomakhidze and social specialist of SC/Safege Ms. Gvantsa Lukava. Training issues included ADB's SPS 2009, IEE/EMP and SEMP implementation. The training was attended by representatives of CC / China Nuclear Industry 23, SC and UWSCG.
- 102.** A signed list of participants (see ANNEX I) and photographs of the training (see Appendix B) are attached to this report. Non-compliances identified during the site visit within the framework of the GUD-02 subproject and the corresponding corrective action plans were discussed during the training. Interactive communication with representatives of the Central Committee took place.

5. FUNCTIONING OF THE SEMP

5.1 SEMP Review

- 103.**All SEMPS were updated due to COVID-19 circumstances for anti-COVID measures during the reporting period.
- 104.**All SSEMPs under ZUG-01, POT-01, POT-02 and JVA-01 projects were prepared by Contractor, endorsed by SC and approved by UWSCG and reviewed/commented by the RETA International Environmental Consultant of ADB under RETA 8663-Ms. Ketidgebuaдзе.
- 105.**Location Specific Environmental Management Plan under JVA-01 project was prepared for Lia well fields within the reporting period (July 2018).
- 106.**SSEMPs prepared by contractors, within the framework of ZUG-01, POT-01, POT-02 and JVA-01 sub-projects during the current and previous reporting periods are presented in table 23 below.
- 107.**SEMP for construction of Water Reservoir and well fields under GUD-02 is prepared by contractor and submitted to SC for their endorsement.
- 108.**This SEMP for POT-02 sub-project was prepared in May 2018, as it is presented in the table below and further updated in August 2020 due to the design changes identified in VO#2, including construction of an emergency bypass for a new WWTP of Poti.

Table 23: SSEMPs Prepared under ZUG-01, POT-01, POT-02 and JVA-01 Sub-projects are given in the table below

No	Project/Site	Date of Approval
1	ZUG-01 – Ingiri Well fields and Pumping Station	March 2016
2	ZUG-01 – Bashi Reservoir	January 2016
3	Jvari-01 - Lia Well Fields	July 2018
4	Pot-02 - Poti WWTP	31 May 2018
5	Pot-02 - Poti WWTP	Updated in August 2020

- 109.**All of the SSEMPs listed above are effective, mitigation measures are still relevant, no changes are required.
- 110.**All SEMPS were updated with risks associated with COVID-19 outbreak including all relevant mitigation measures.

6. GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.1 Good Practice

111. During the reporting period, close monitoring, guidance and communication between the DEPP, IPMO, consultant supervision team and contractors were improved, as suggested during the previous EMR, July-December 2020, to avoid non-compliances and improve the situation on construction sites within the USIIP / T4.

6.2 Opportunities for Improvement

112. During the next reporting period the tracking of actions to address non-conformances will be improved by PIU up to 100% out of current 95%. All non-conformances addressed will be reflected in the next SAEMR, July-December 2021.

7. SUMMARY AND RECOMMENDATIONS

7.1 Summary

113. During the reporting period Individual and joint on-site monitoring activities were conducted by Environmental Monitoring Specialist of SC and Environmental Specialist of USIIP on a regular basis.
114. The Government of Georgia and its Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, issued the General Guidelines Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) which applies to all sectors of economic activity.
115. The General Guideline for COVID-19 was also developed by the Government of Georgia specifically for the construction sector.
116. An Emergency Management Plan was developed by SC/SAFEGE for prevention of employees against COVID-19.
117. Environmental Monitoring Specialist of Safege, Mr. Shalva Bosikashvili conducted monitoring of project sites under T4 and developed Non-Conformance Notice were required. He also developed quarterly environmental monitoring reports based on the monthly reports submitted by Contractor and environmental site inspections and submit to UWSCG.
118. The monitoring activities included monitoring of compliance of construction activities to the IEE/EMP and SEMP requirements under POT-01, POT-02, JVA-01 and GUD-02 sub-projects.
119. Environmental Specialist of USIIP Ms. Kate Chomakhidze performed monitoring of contractor's performance in accordance with the requirements of approved IEE/EMPs, SEMPs, and other environmental commitments of the contractor. USIIP/ES developed Semi-annual monitoring reports and submitted to ADB based on the quarterly reports prepared by SC and monitoring results.
120. Non-Conformance Notice has been issued to the contractor by the environmental specialist of UWSCG/USIIP if needed. Mitigation measures in order to reduce major environmental impacts have been instructed to CCs during the monitoring visits as well.

The Contractor is required to undertake parametric measurements and observations on air quality, noise and socio-cultural resources.

121. Necessary instructions have been given to the Contractor by UWSCG and SC to follow the EMP's and SSEMP's requirements for GUD-02, POT-01, POT-02 and JVA-01 sub-projects.

7.2 Recommendations

122. During the reporting period, January-June 2021, the USIIP/T4 of Investment Program was implemented in accordance with the requirements of ADB - SPS 2009 and the National Legislation.

123. More detailed recommendations for the implementation of T4 during the next reporting period January-June 2021 are provided in the table 24 below:

Table 24: Recommendations to Address Environmental Issues under POT-01, POT-02, JVA-01 and GUD-02 sub-projects.

Recommendations POT-01, JVA-01, POT-02 and GUD-02 sub-projects	
Recommendations POT-01	Implementation status and date
Poti Network	
<p>Wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required should be provided</p> <p>All construction materials and wastes should be properly segregated and stored adequately</p>	<p>Instructions are given to contractor to improve the situation and to conduct following mitigation measures by the 15th July 2021</p>
<p>Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).</p>	<p>Instructions are given to contractor to improve the situation and to conduct following mitigation measures by the end of July 2021:</p> <p>Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance</p> <p>Noisy construction activities will be avoided during night time</p>

Recommendations POT-01, JVA-01, POT-02 and GUD-02sub-projects

	<p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions</p> <p>Impose speed limits on construction vehicles to minimize emissions along areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise</p> <p>Conduct meetings with population and provide information related to schedule of construction activities and noise caused by the project activities.</p>
Air pollution	<p>Actions are needed to reduce impacts on air quality at both the construction and disposal sites, by controlling dust and reducing the amount of material to be dumped.</p> <p>At roads used, TAHAL group will employ appropriate measures to control the generation of dust clouds along project roads and at the work sites</p> <p>Dust control will be carried out; the accesses where dust might be generated speed limit will be set and the road surface will be watered with water truck.</p>

Recommendations POT-01, JVA-01, POT-02 and GUD-02sub-projects

	<p>To minimize the generation of dust, Dumpers trucks will be covered while delivering Sand Materials</p> <p>Dust generation will be controlled while unloading the loose material (particularly) at the site by sprinkling water/unloading inside a barricaded area; wheels should be cleaned and undercarriage of haul trucks prior to leaving construction site</p>
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POT-02

<p>The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project</p>	<p>Contractor is given strong instruction to improve the situation, develop CAP (if requested) and send improved photos of Site to SC and UWSCG by the 15 of July 2021</p>
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GUD-02

<p>Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activates</p> <p>Construction sites should be equipped with Covid-19 prevention facilities, including information banners and first aid kits.</p>	<p>Contractor is given strong instruction to improve the situation, develop CAP (if requested) and send improved photos of Site to SC and UWSCG, start immediately, within five days.</p>
--	---

<p>Noise from the construction activities should not cause disruption and nuisance to nearby community and other sensitive receptors (i.e. school, hospitals).</p>	<p>Instruction are given to contractor to improve the situation and to conduct following mitigation measures by the end of July 2021: Plan activities in consultation with SC and IPMO/UWSCG so that activities with the greatest potential to generate</p>
--	---

Recommendations POT-01, JVA-01, POT-02 and GUD-02sub-projects

	<p>noise are planned during periods of the day that will result in least disturbance</p> <p>Noisy construction activities will be avoided during night time</p> <p>All construction equipment and vehicles shall be well maintained, regularly inspected for noise emissions</p> <p>Impose speed limits on construction vehicles to minimize emissions along areas where sensitive receptors are located (i.e. temples, hospitals, schools, houses)</p> <p>Install noise barriers (e.g., panels, curtains, or partitions) to reduce the emission of engine noise</p> <p>Conduct meetings with population and provide information related to schedule of construction activities and noise caused by the project activities.</p>
--	---

124.Conduct Post-Construction Environmental Audit by the September 2021 for ZUG-01 project and reflect findings of the audit in the next Semi-Annual EMR of July-December 2021.

125.Conduct monitoring of Environmental quality measurements of Ambient Noise and Air quality under POT-01, POT-02 and GUD-02 sub-projects project at the nearest sensitive receptors in September 2021.

Table 25: The Specific Plan for Environmental Measurement under POT-01sub-project

Parameters	Quarterly measurement
------------	-----------------------

Dust	September 2021
Vibration	September 2021
Carbon monoxide	September 2021
Nitrogen dioxide	September 2021
Sulfur dioxide	September 2021
Noise	September 2021

126.Conduct monitoring of Noise and Ambient Air quality under POT-02 project near the sensitive receptors of Construction sites in September 2021.

Table 26: The Specific Plan for Environmental Measurement under POT-02 Project

Parameters	Quarterly measurement
Dust	September 2021
Vibration	September 2021
Carbon monoxide	September 2021
Nitrogen dioxide	September 2021
Sulfur dioxide	September 2021
Noise	September 2021

127.Conduct monitoring of Ambient Noise and Air quality under GUD-02 project at the nearest sensitive receptors in September 2021.

Table 27: The Specific Plan for Environmental Measurement under GUD-02 Project

Parameters	Quarterly measurement
Dust	September 2021
Vibration	September 2021
Carbon monoxide	September 2021
Nitrogen dioxide	September 2021
Sulfur dioxide	September 2021
Noise	September 2021

ANNEX A: Environmental Monitoring Data of Noise and Ambient Air Quality GUD-02, 22 March 2021



China Nuclear Industry 23 Construction Co., Ltd
Construction of Sewage and Water Supply Systems in Gudauri
(UWSCG-ICB-GUD-02-2018)

The Contractor

Address: #5 Java street, 0180 Tbilisi, Georgia
Telephone: +995 571246556

Safegate Ingenieurs Conseils/Engineering Solution LLC as sub-consultant
Mr. Victor Hruska, Team Leader
Medea Chakhava #9
0177 Tbilisi, Georgia

[your reference/date]	[our reference/date]	[your contact]	[e-mail]
	GUD02-CNI23-ENG-21036 2021-03-25	Luo Ke	gudauri@cni23.com

Construction of Sewage and Water Supply Systems in Gudauri
(UWSCG-ICB-GUD-02-2018)

Subject: Quarterly Environmental Parametric Measurement Report

Dear Mr. Victor,

We are sending Quarterly Environmental Parametric Measurement Report, please kindly find the attachment.

Yours sincerely

Contractor of Construction of Sewage Collection and Water Supply Systems in Gudauri

Mr. Luo Ke
Project Manager

Appendix : 8 pages

Copy to: Contractor internal

Construction of Sewage Collection and Water Supply Systems in Gudauri (UWSCG-ICB-GUD-02-2018).

**Date of Commencement March 1 2019 Term of Work
Completion December 2021**

1. Introduction

The Government of Georgia wishes to improve and expand Water Supply and Sanitation (WSS) Services across urban centers by leveraging donor and private sector funds and has requested ADB to develop an investment program to be financed through a multi-tranche financing facility (MFF). The proposed Investment Program will specifically address basic urban infrastructure and services management in the provincial capitals and secondary towns. The Investment Program will be implemented in various tranches; each tranche containing technically feasible and economically viable subprojects developed by UWSCG and agreed with ADB.

The present tender considers the "Construction of Sewage Collection and Water Supply Systems in Gudauri".

2. Location of the project areas

Gudauri is a ski resort located on the south-facing plateau of The Greater Caucasus Mountain Range in Georgia, in the Stepantsminda District, along the Georgian Military Highway near the Cross Pass, 120 km to the north of the capital Tbilisi on the way to Kazbegi and two hours drive from the Tbilisi International Airport..

3. Regulatory Requirements

The environmental quality standards on the territory of Georgia are regulated by Decree No 297N of August 16, 2001 of the Minister of Labor, Health and Social Affairs of Georgia "On the approval of the environmental quality standards" (State Registration Code 470.230.000.11.119.004.920).

The following amendments were made to the above-mentioned decree:

1. Decree No 38/N of February 24, 2003 of the Minister of Labor, Health and Social Affairs of Georgia, SSM III, №16, 06.03.2002, Article 150
2. Decree No.251/N of the Minister of Labor, Health and Social Affairs of Georgia of September 15, 2006– SSMIII, №129, 20.09.2006, Article 1716
3. Decree No.351/N of the Minister of Labor, Health and Social Affairs of Georgia of December 17, 2007– SSMIII, №179, 18.12.2007, Article 1974
4. Decree No.304/N of the Minister of Labor, Health and Social Affairs of Georgia of September 18, 2009– SSMIII, №115, 22.09.2009, Article 1312

5. Decree No.98/N of the Minister of Labor, Health and Social Affairs of Georgia of April 14, 2010– SSMIII, №39, 14.04.2010, Article 622

6. Decree No.350/N of the Minister of Labor, Health and Social Affairs of Georgia of October 25, 2010 - SSMIII, №138, 26.10.2010, Article 2000

7. Decree No.01-24/N of the Minister of Labor, Health and Social Affairs of Georgia of May 17, 2012 – web-site, 17.05.2012.

3. Description of the work to be performed.

In accordance with the agreement concluded between the Construction Contractor and Naseto Group LLC, environmental quality analysis was carried out at various points in Gudauri.

Construction work has not yet been carried out, so all the measurement results are background. Background measurements were carried out at the sites of the future construction of the reservoir, pumping station and pipeline route.

4. Performed measurements and results

Gudauri is not a settlement where stationary observations of the quality of atmospheric air are carried out, therefore pollution data are not available.

4.1 Noise and vibration.

The measured noise and vibration are also background.

As a rule, the noise caused by the movement of equipment is reduced at some distance. Such a reduction has logarithmic properties. In the case of noise caused by construction work, the noise propagation scheme from the noise point is used, which can be determined as follows: Noise level 1 - Noise level 2 = $20 \log r_2 / r_1$, which means that when doubling the distance, the noise decreases by 6 dBA .

Table 2: Noise levels

Distance from noise source, m	Calculation level of the noise Average value - dBa	Calculation level of the noise Maximum value - dBa
10	80	90
20	74	84
40	68	78
80	62	72
160	56	66
320	50	60

4.4 Air quality values

The quality indicators of the following components measured in the project area: air quality with total hydrocarbons, sulfur and nitrogen dioxide, carbon monoxide ,dust,noise and vibration by the executor The results of the accomplished quality measurements given in Annex1.

"ზაინა ნუკლეარ ინდასტრი 23 კონსტრუქშენ კო"-ს ფილიალი საქართველოში
 "Georgia Branch of China Nuclear 23 Consturction Company Co.,Ltd"
 ჰაერის მტვერით დაბინძურების, ხმაურის და ვიბრაციის გაზომვების შედეგები
 22.03.2021. 12³⁰ – 15⁵⁰

Dust air pollution, noise and vibration measurements on 22.03.2021. 12³⁰ – 15⁵⁰

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები Measurement results							
	ადგილ მდებარეობა Locastion	კოორდი- ნატები Coordinates	ხმაურ o A _{max} დბ Noise A _{max} db	ვიბრო სიჩქარე Vibro Speed		ვიბრო აჩქარება Vibro acceleration		მტვერი მგ/მ ³ Dust mg / m ³		
				მმ/წმ mm/s	დბ db	მ/წმ ² m/s ²	დბ db	Pm _{2.5}	Pm ₁₀	Total
1	გუდაური, სატუმბო ხადგური. Gudauri, Pumping station	38T0458893 4702408	44,8	<0.1	<66	<0.1	<100	0.013	0.015	0.021
2	გუდაური, რეზერვუარი. Gudauri, Reservoir	38T0457008 4703113	53,4	<0.1	<66	<0.1	<100	0.027	0.032	0.042
3	გუდაური, ტრასა. Gudauri, Track	38T0457187 4702170	69,8	0.1	66	0.1	100	0.036	0.041	0.069

ჰაერის აზოტის და გოგირდის დიოქსიდით, ნახშირბადის მონოოქსიდით და
 ჯამური ნახშირწყალბადებით დაბინძურების გაზომვების შედეგები
 22.03.2021. 12³⁰ – 15⁵⁰

**Nitrogen and sulfur dioxide, carbon monoxide and total hydrocarbon air pollution
 measurement results on 22.03.2021. 12³⁰ – 15⁵⁰**

№	გაზომვის წერტილის Measurement point		გაზომვის შედეგები მგ/მ ³ Measurement results mg/m ³			
	ადგილ მდებარეობა Locastion	კოორდი- ნატები Coordinates	აზოტის დიოქსიდი nitrogen dioxide	გოგირდის დიოქსიდი sulfur dioxide	ნახშირბადის მონოოქსიდი carbon monoxide	ჯამური ნახშირწყალბ ადები total hydrocarbon
1	გუდაური, სატუმბო სადგური. Gudauri, Pumping station	38T0458893 4702408	0.004	<0.01	0,15	<0.1
2	გუდაური, რეზერვუარი. Gudauri, Reservoir	38T0457008 4703113	0.002	<0.01	0,19	<0.1
3	გუდაური, ტრასა. Gudauri, Track	38T0457187 4702170	0.011	<0.01	0,52	<0.1

გაზომვის დროს გამოყენებულია ხელსაწყოები/ During measurement tools used:

ხმაური/Noise - Mini Sound Level Meter N05CC;

ვიბრაცია/Vibration- Smart Sensor ® AR63B Vibration Meter;

დამტვერიანობა/ Dust- Portable Dust Detector model LB-HD08

და Gasella Mikro Dust Pro (თვითკალიბრაცია წელღვანი და ოფტიკური ფილტრით./Self-calibration zero and optical filter.). აზოტის დიოქსიდის და ნახშირბადის მონოოქსიდის - nitrogen dioxide and carbon monoxide - Չևաղ CO/NO₂;

ჯამური ნახშირწყალბადების - total hydrocarbon MiniRae 7600;

გოგირდის დიოქსიდის - sulfur dioxide – WASP-XM-E-SO₂.

2001 წლის 16 აგვისტოს, საქართველოს შრომის, ჯანმრთელობისა და სოციალური დაცვის მინისტრის ბრძანება №297/ნ, გარემოს ხარისხობრივი მდგომარეობის ნორმების დამტკიცების შესახებ: / August 16, 2001, the Ministry of Labor, Health and Social Affairs of Georgia №297 / N, approval environmental quality of the norms:

დამტვერიანობის ნორმა შეადგენს 0.5 მგ/მ³; / Dust norm is 0.5 mg / m³;

აზოტის დიოქსიდის ნორმა შეადგენს 0.2 მგ/მ³; / nitrogen dioxide norm is 0.2 mg / m³;

გოგირდის დიოქსიდის ნორმა შეადგენს 0.5 მგ/მ³; / sulfur dioxide norm is 0.5 mg / m³;

ნახშირბადის მონოოქსიდის ნორმა შეადგენს .5 მგ/მ³; / carbon monoxide norm is .5 mg / m³;

ჯამური ნახშირწყალბადების ნორმა შეადგენს 1 მგ/მ³; / total hydrocarbon norm is .1 mg /m³;

ვიბროსიჩქარის ნორმა შეადგენს 112 დბ; / Vibro-speed norm is 112 db;

ვიბროაჩქარების ნორმა სპეციალური დამცავი საშუალებების გამოყენების გარეშე - 126 დბ./Vibro acceleration norm special protective outlets without using - 126 db.

დირექტორი:
Director

ნ. გაბუნია
N. Gabunia

ტექნიკური შემსრულებელი
Technical Contractor

ს. ხატავა
S. Khatsava



Environmental Monitoring Data of Noise and Ambient Air Quality POT-02, 7 April 2021



National Environmental Agency of Georgia

The Department of Environmental Pollution Monitoring

Division of Technogenic Impact Assessment and Expedition Services

Environmental Survey Report NA4-2021

- ❖ **Objective:** Negotiation # FM- 3/355 07 April 20201:
- ❖ **Client:** LUDWIG PFEIFFER;
- ❖ **Address of the Client :** Tbilisi, Kekelidze str. #18
- ❖ **Tel, Mail:** 599 34 68 21;
- ❖ **Description :** To measure and determine the dust, carbon dioxide and nitrogen dioxide content in Ambient Air and also to measure the level of noise in Poti, at 1 (one) point, indicated by the customer;
- ❖ **Used tools :** Elan Ecointech, Cassella Cel 63x, Cassella Cel 712 Microdust Pro;
- ❖ **Date of the Measurement:** 15.04.2021, 11:05-11:30⁰⁰

Results of the Measurement

N	Measurement site	Nitrogen dioxide	Carbon dioxide	Dust	Noise level
		NO ₂ mg/m ³	CO ₂ mg/m ³	mg/m ³	dbA
1	Sewage construction area X 719287 Y 4675750	0,182	0,16	0,045	51,4
Environmental norms		0,2	5,0	0,5	

Photos:



Acting Head of Division
Leading specialist

Gela Sandodze
Gigla Morgoshia

Agreed: Head of Department

M. Arabidze

Environmental Monitoring Data of Noise and Ambient Air Quality POT-01, 1 April 2021

					
<p>Project:</p> <p>Improvement of Poti Wastewater System Sub-project Air, Noise & Vibration monitoring under project April, 2021</p> <p>Prepared for:</p> <p>Tahal Group</p> <p>Prepared by:</p> <p>Gergili LLC (202200787)</p> <p>Vajha-Pshavela Ave., III Block, Building 7, Apt.13, Tbilisi Georgia Mobile: +995 599 164469 E-mail: info@gergili.ge Website: www.gergili.ge</p>					
A01	01.04.2021	Client Review & Approval	Gergili	Tahal	Tahal
Rev	Date	Reason for Issue	Prepared by	Checked by	Approved by
Project Area		Poti, Georgia	Document Description		
Transfer Date		April 1 st , 2021	Improvement of Poti Wastewater System Sub-project (Air, Noise & Vibration monitoring)		
Project Code			Revision		
GERG001			A01		

1. Introduction

It is proposed to improve the wastewater system in Poti under the Asian Development Bank (ADB) funded Urban Services Improvement Investment Program, which is under preparation stage. This Investment Program, implemented in seven towns, will develop the water and sanitation services, which will improve quality of life and optimize the social and economic development. Ministry of Regional Development and Infrastructure (MoRDI) is the Executing Agency (EA) and United Water Supply Company of Georgia (UWSCG) is the Implementing Agency (IA) of this Program.

This sub-project is located in Poti. The City of Poti is the most developed part of the Samegrelo - Zemo Svaneti region of Georgia. It is located on the Black Sea and lies some 360 km to the west from the capital City of Tbilisi. To the west it borders the Black Sea; to the north the right tributary of the rivers Rioni and Khobi and to the southeast the river Kapartchina and Paliastomi Lake. Regional location of Poti is shown in below.

The project measures for the sewer network comprise the laying of 150 km new gravity pipes (DN 100 to DN 1200) and 25 km new pressure pipes (OD 110 to OD 630). The sewer network is divided into two zones. Poti South and Poti North. The southern part will serve an existing wastewater treatment plant in the South of Poti, the northern part - about 85% of the total network - will serve the new wastewater treatment plant to be constructed under the present project.

Project implementation body is UWSCG. Project will be implemented as according to the national as well as ADB's environmental legislative framework (SPS 2009) requirements.

2. Regulatory Requirements

The basic legal document is "The Constitution of Georgia", which was adopted in 1995. While the Constitution of Georgia does not directly address environmental matters, it does lay down the legal framework that guarantees environmental protection and public access to information with regard to environmental conditions.

The **Law of Georgia on Environmental Impact Permit (2007)** defines the full list of activities on the territory of Georgia subject to mandatory ecological expertise.

The **Law of Georgia on Environment Protection (1997)** regulates the legal relations between the state establishments and physical or legal entities in the field related to the use of territorial waters, air space, including continental shelf and special economic zones, environmental protection and natural resources on the territory of Georgia.

The **Law OF Georgia on Environmental Assessment Code (2018)** This Code regulates matters related to strategic documents and public or private activities which may have significant effects on the environment, human life and/or health.

The **Law of Georgia on Waste Management Code (2014)** The purpose of this Code is to establish a legal framework in the field of waste management to implement measures that will facilitate waste prevention and its increased re-use as well as environmentally safe treatment of waste (which includes recycling and separation of secondary raw materials, energy recovery from waste and safe disposal of waste).

The **Law of Georgia on Licenses and Permits (2005)** defines the list of activities needing licenses or permits, including so called "Environmental permit". It also defines the requirements for the license or permit issue.

The **Law of Georgia on State Ecological Expertise (2007)**. Under the given Law, the ecological expertise is a necessary measure for making decision on the issuance of environmental and/or construction permit(s).

The state ensures protection of the environment and, correspondingly, protection of water as its main component in **The Law of Georgia on Water (1997)**.

The **Law of Georgia on Cultural Heritage (2007)**. Article 14 of the Law specifies the requirements for 'large-scale' construction works.

The **Law of Georgia on Public Health (2007)**. Promotion of the introduction of a good health and healthy lifestyle of the population; Creation of the environment, which is safe for a human health; Promotion of the protection of the reproductive health of a family; Prevention of infectious and non-infectious diseases.

The **Law of Georgia "On the Red List and Red Book" (2003)** regulates the legal relations in the field of developing the Red List and Red Book, protecting and using the endangered species.

The **Law on Ambient Air Protection (2000)**. It stipulates Maximum Allowable Concentration (MAC) of various pollutants in Ambient Air.

The **Law on System of Protected Areas (1996)**. Depending on the activity and type of protected area, permission for any work will be granted or denied

Technical Regulation of Drinking Water (2007) (Decree N 349/N). The Ministry of Labour, Health and Social Affairs of Georgia. Water supply and monitoring shall comply with the technical regulation.

Rules of the Protection of the Surface Waters of Georgia from Pollution (1996) (№130 order of the Minister of the Protection of the Environment and Natural Resources of Georgia). Source water quality shall comply with the provisions for domestic use.

Technical Regulation of Environmental Protection (2008). (Decree N745), Minister of the Protection of the Environment and Natural Resources of Georgia. Treated effluent disposal from sewage treatment plants shall comply with the specified standards.

"Approval of Environmental Quality Standards", approved by Minister of Health, Labour and Social Affairs [Decree number - 297n of August 16, 2001]. Social Affairs (297n of August 16, 2001) upon the 'Approval of Environmental Quality Standards'; specifying the tolerable and maximum admissible levels of noise for different zones.

3. Description of the works to be accomplished

This is the Poti wastewater sub-project. It involves the rehabilitation and extension of the wastewater network and the construction of a wastewater treatment plant.

It is orientated towards the location of the existing wastewater treatment plant at the northern edge of Poti. The total length of gravity sewer is 22 km, the total length of pressure pipes is 10 km.

There are nine existing wastewater pumping stations. Most of these pumping stations are in a very bad condition. The mechanical and electrical equipment has long passed its design life time and also the civil works need complete replacement. The pumping stations are over-sized.

The wastewater project measures comprise the rehabilitation and extension of the sewer network with gravity sewers and pressure lines, the construction of wastewater pumping stations as well as the construction of a new wastewater treatment plant.

The project measures for the sewer network comprise the laying of 150 km new gravity pipes (DN 100 to DN 1200) and 25 km new pressure pipes (OD 110 to OD 630). The sewer network is divided into two zones. Poti South and Poti North. The southern part will serve an existing wastewater treatment plant in the South of Poti, the northern part - about 85% of the total network - will serve the new wastewater treatment plant to be constructed under the present project.

The present sub-project is designed to improve the service standards of the wastewater system in Poti. It is designed to collect and treat the wastewater expected in the year 2040.

4. Measurement results

This report describes air, noise and vibration measurements performed on April 1st, by Gergili LLC subcontractor, Ltd. BBE in Poti, under the contract with TAHAL GROUP B.V.

Test were performed on 1st of April, 2021 in Poti:

The Construction Contractor carried out the construction works at the following streets:

Kakulia Street , Poti: 41.68358939785864 - 42.13442593718969

Gamsakhurdia Street, Poti: 41.675626414321734 - 42.13519663871343

Makalatia Street, Poti: 41.68248284948836 - 42.133363990856076

4.1 Noise Monitoring

KakuliaStr: Near the machinery, where the noise is the most intense, 76 dBA was recorded. After moving away from the working machinery, the noise intensity increased to 80 dBA and after moving further, it decreased to 67 dBA. It should be noticed, that apart from this machinery, almost nothing caused the noise because the transport was not noticed while being there. Inside the houses, the noise was not so intense as outside and it was 30 dBA.

Gamsakhurdia Street: At the location where the machinery worked, the noise was 75 dBA. In 10-20 meters, it reduced to 66-61 dBA. At Amiranashvili Street, only 1 water pump was working.

Makalatia Street: Near the machinery, (only one Water pump was on), the noise was 83 dBA. When moving a little far from the location, the noise was decreasing to 63 dBA and then to 54 dBA.

As a rule, noise caused by moving equipment is reduced at some distance. Such reduction has logarithmic properties. In case of noise caused by construction activities, noise spread pattern from the noise point is used, that can be determined as: $\text{Noise level1} - \text{Noise level 2} = 20 \log r2/r1$

The Georgian standards for noise control were defined and approved by the Decree of the Minister for Health, Labour and Social Affairs (297n of August 16, 2001) on the „Approval of Environmental Quality Standards”, which specify the tolerable and maximum admissible levels of noise for different zones.

Time	Indicative Level dBA	Maximum Admissible Level max dBA
7am – 11 pm	78	80
11pm – 7am	32	30

Table 4.2 Georgian Noise Quality Standards in Residential Areas

Location #1: Kakulia Street, Poti: [42.13001](#), [41.68557](#)

Distance from noise source, m	Calculation level of the noise Average value - dBA	Calculation level of the noise Maximum value - dBA
10	76	80
20	67	80

Location #2: Gamsakhurdia Street, Poti: [42.13330](#) [41.68244](#)

Distance from noise source, m	Calculation level of the noise Average value - dBA	Calculation level of the noise Maximum value - dBA
10	66	75
20	61	70

Location #3: Makalatia Street, Poti: [42.13056](#) [41.68761](#)

Distance from noise source, m	Calculation level of the noise Average value - dBA	Calculation level of the noise Maximum value - dBA
10	63	70
20	54	60

4.3 Vibration Monitoring

Vibration of the equipment was measured at different points. The vibration acceleration of the water pump on its own, vibration acceleration of the ground in 10 and 20-meter radius from the working equipment (e.g - 1 water pump, 1 excavator, 1 BobCat) was measured. All pump motors showed the vibration acceleration and velocity in the similar range: 15.2 – 20.1 m/s² and 7.4 – 9.8 mm/s respectively. The vibration from the pumps was directly taken from its' motors. The vibration acceleration was measured in 10 and 20-meter radius from the pump and other equipment working simultaneously. Vibration of the pump and equipment was not transferred to the ground and the distance of vibration transfer was lost in less than 10-meter radius from working equipment and machinery.

Location #1: Kakulia Street, Poti: [42.13001](#) [41.68557](#)

Vibration acceleration of the pump	0.066
10 m from the pump and equipment	0.00
20 m from the pump and equipment	0.00

Location #2: Gamsakhurdia Street, Poti: [42.13330](#) [41.68244](#)

Vibration acceleration of the pump	0.02
10 m from the pump and equipment	0.00
20 m from the pump and equipment	0.00

Location #3: Makalatia Street, Poti: [42.13056](#) [41.68761](#)

Vibration acceleration of the pump	0.22
10 m from the pump and equipment	0.00
20 m from the pump and equipment	0.00

4.4 Air Quality Monitoring Results

The air quality indicator parameters measured in the project area: CO, SO₂, NO₂, PM2.5 and PM10. Measurements for air quality were taken as a background reading with equipment off. Second and third readings were taken in 10-meter and 20-meter radius from the working equipment, when the equipment was under heavy load.

The results of the air quality measurements are given in the table below. The values were calculated as an average of 3 separate measurements done in one hour, every 20 minutes, during working equipment's heavy load.

Locations	CO - mg/m ³ (Background)	SO ₂ - mg/m ³ (Background)	NO ₂ - mg/m ³ (Background)	PM 2.5, PM 10 - mg/m ³ (Background)
Kakulia Street	0.6	0.00	0.001	0.001, 0.007
Gamsakhurdia Street	0.00	0.00	0.00	0.001, 0.001
Makalatia Street	0.00	0.00	0.001	0.063, 0.071
At the location	CO (Equip. ON)	SO ₂ (Equip. ON)	NO ₂ (Equip. ON)	PM 2.5, PM 10 (Equip. ON)
Kakulia Street	4.4	0	0.035	0.024, 0.029
Gamsakhurdia Street	0	0	0.037	0.013, 0.029
Makalatia Street	6.6	0	0.071	0.013, 0.017
(10 meters)	CO (Equip. ON)	SO ₂ (Equip. ON)	NO ₂ (Equip. ON)	PM 2.5, PM 10 (Equip. ON)
Kakulia Street	1.6	0.00	0.033	0.029, 0.026
Gamsakhurdia Street	0.00	0.00	0.043	0.012, 0.014
Makalatia Street	3.8	0.00	0.053	0.084, 0.087
(20 meters)	CO (Equip. ON)	SO ₂ (Equip. ON)	NO ₂ (Equip. ON)	PM 2.5, PM 10 (Equip. ON)
Kakulia Street	6.1	0.00	0.049	0.012, 0.013
Gamsakhurdia Street	0.00	0.00	0.033	0.001, 0.001
Makalatia Street	1.00	0.00	0.046	0.081, 0.083

Table 4.4 Air Quality Measurement Results

If we compare previous report and this report's air quality measurement results, we would be able to see a significant difference in the values of the air quality parameters. The main reason which might be a main contributor to difference in measurement results, is weather conditions. On April 1st, 2021 there was a sunny day in Poti. This is why the air quality is slightly worse than that of previous report. During the previous measurements on 12th of November, the air temperature was ranging between 10-13 °C on 12th November, and April 1st air temperature was 17 °C.

5. Equipment

Devices used for various measurements on the site:

Noise level measurements - Reed Instruments SD-9300, SL-417 Noise Level Microphone Adapter

Vibration level measurements – Reed Instruments SD-8205, Vibration Meter

Air quality measurements – AeroQual Series 500 Handheld Air Quality Monitor with detachable CO, SO₂, NO₂ and PM sensors

All the declared thresholds regarding environmental quality can be seen in the following document:

August 16, 2001, Ministry of Labor, Health and Social Affairs of Georgia N~297 / N, Approved Environmental Quality of the Norms

Revaz Enukidze
Director



ANNEX B: PHOTOS OF JVA-01, POT-01, POT-02 and GUD-02 SUB-PROJECTS

PHOTOS: JVA-01

Construction of Water Supply Network in Jvari, JVA-01 Sub-project (Photo No 1, Photo-02 Photo No3, Photo No4)

Photo No1



Photo-02



Photo No3



Photo No4



**Construction of Water Reservoir in Jvari (Photo No5
Photo No6)**

Photo No5



Photo No6



PHOTOS: POT-02

Construction of WWTP in Poti, POT-02 Sub-project (Photo No7, Photo No8, Photo No9, Photo No10, Photo No11, Photo No12, Photo No13, Photo No14, Photo No15)

Photo No7



Photo No8



Photo No9



Photo No10



Photo No11



Photo No12



Photo No13



Photo No14



Photo No15



PHOTOS: POT-01

Construction of Waste Water Network in Poti, POT-01 (Photo No14, Photo No15, Photo No16, Photo No17, Photo No18, Photo No19)

Photo No14



Photo No15



Photo No16



Photo No17



Photo No18



Photo No19



PHOTOS: GUD-02

Gudauri Water Reservoir, GUD-02 (Photo No20, Photo No21, Photo No22, Photo No23)

Photo No20



Photo No21



Photo No22



Photo No23



Gudauri Well fields, GUD-02 (Photo No24, Photo No25)

Photo No24



Photo No25



Gudauri Network, GUD-02 (Photo No26, Photo No27)

Photo No26



Photo No27



Environmental Safeguard Training under GUD-02 sub-project, 10 May 2021

Photo #1



Photo #2



Photo #3



ANNEX C: NON-COMPLIANCE NOTICE (POT-01), 3 February 2021

ANNEX 1 – Non Compliance Notices

Non-Compliance Notice

Project: Construction Supervision (under USIP, Tranche 4 Projects), UWSOG/USIP/QCBS/02-2014 Contract No: P43405-ICB-POT-01 Contractor: TAHAL GROUP Reference:	Non-compliance Notice Pot 01
This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented urgently .	
GENERAL COMMENT FOR ALL SITES: Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations. Refueling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.	
NON-COMPLIANCE IN POT 01	
WWTP Pot 01	
<ul style="list-style-type: none"> Unsafe wiring and power generator without drip tray and grounding Oil spills 	
Unsafe wiring and power generator without drip tray and grounding	
	
Oil spills	

35

	
All these conditions have to be remedied within 10 days by the prime Contractor TAHAL GROUP	
Date of site visit: 05.02.2021	
ShaNs: Botskashvili - Environmental specialist - "SAFEGE"	
Ketavan Chomakhidze - Environmental specialist "UWSOG"	

NON-COMPLIANCE NOTICE (POT-01), 30 April 2021

Non-Compliance Notice	
Project: Construction Supervision (under IWRP, Transfer & Project), UNRESOLVED/ICR/1/01-2014 Contract No: P43004 ICR POT 01 Contractor: TMMAL GROUP Reference:	Non-compliance Notice Pot 01
This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented urgently. GENERAL COMMENTS (SR No. 8038) Site generally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored separately. All spill response kits should be placed at the appropriate locations. Refueling station should be equipped with the spill kit and fire relevant fighting equipment. It should be used for fuel spillage prevention. Workers traffic signs and signs to direct control traffic movement properly. Site cleaning to regularly at the construction site.	
NON-COMPLIANCE IN POT 01 WWTP Pot 01 <ul style="list-style-type: none"> Housekeeping issues, waste and construction materials not controlled and stored safely etc. Oil spill 	
Open trench without any barrier and warning rope	
	
Oblique view	

	
<p>Do site opening personnel exhibit appropriate PPE (safety distance in the opening back)?</p>	
	
<p>All these conditions have to be remedied within 10 days by the prime Contractor TANAL GROUP</p>	
<p>Date of closure: 2021.05.01</p>	
<p>Owner: Industrie & Energie Management - "IAEM"</p>	
<p>Keyvert: Chemische - Dronkmarkt special "UWCO"</p>	

NON-COMPLIANCE NOTICE (POT-01), 19 May 2021

Non-Compliance Notice	
<p>Project: Construction Supervision (under UNIP, Tranche 2 Project), UWSCG/UNIP/CBS/02-2014 Contract No: P43349-ICB-POT-01 Contractor: TANAL GROUP Reference:</p>	<p>Non-compliance Notice Pot 01</p>
<p>This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented urgently.</p>	
<p>GENERAL COMMENTS FOR ALL SITES: Site tidyness should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations. Refueling station should be equipped with the spill kit and fire relevant fighting equipment; spill tray should be used for fuel spillage prevention. Reentry traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.</p>	
<p>NON-COMPLIANCE IN POT 01: WWTP Pot 01:</p> <ul style="list-style-type: none"> Housekeeping is not acceptable; burning of kind of waste is prohibited. Oil leakage from the truck Spilled oil 	
<p>Housekeeping is not acceptable; burning of kind of waste is prohibited.</p>	
	
	

Oil leakage from the truck



Spilled oil



All these conditions have to be rectified within 10 days by the prime Contractor **TAMAL GROUP**

Date of site visit: 10.05.2021	
Shiva Borkhelli - Environmental specialist - "SAFEQ"	
Kamesh Choudhary - Environmental specialist "UWSC"	

NON-COMPLIANCE NOTICE (POT-01), 24 May 2021

Non-Compliance Notice

Project: Construction Supervision (under USIP, Tranche 2 Project) UWSC/USIP/Oct/Nov 2018 Contract No: P43409-ICB-POT-01 Contractor: TAMAL GROUP	Non-compliance Notice Pot 01
Reference: This notice is to advise the prime Contractor, on the referenced Contract, of the following notice on health, safety and environmental measures to be implemented urgently .	
GENERAL COMMENT FOR ALL SITES: Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly aggregated and stored adequately. Oil spill response kit should be placed at the appropriate locations. Refueling station should be equipped with the spill kit and fire relevant fighting equipment; drip tray should be used for fuel spillage prevention. Relevant traffic signs and flagmen should control traffic movement properly. PPE wearing is obligatory at the construction site.	
NON-COMPLIANCE IN POT 01: WWTP Pot 01 <ul style="list-style-type: none"> • Tree damage • Electrical safety violation • Spilled oil • Unsafe house connection pits without barriers and warning signs • Drainage channel contaminated with inert material and solid waste 	
Backhoe has damaged the tree.	
	



NON-COMPLIANCE NOTICE (POT-01), 28 May 2021

Urban Services Improvement Investment Project (USIP) - Georgia

Date: 28 May 2021

Page 1 of 3

Non-Compliance Notice

Project: USEP/T4 Contract No: POT-01 Sub-project Contractor: TAHAL Group BV Supervision Consultant: "SAFEGE France with Engineering Solution LLC Georgia".	Non-compliance Notice PotI
Reference: Construction of Waste Water System in PotI	

NON-COMPLIANCE IN POTI

- Construction activities information barriers should be installed at each construction segment;
- All residents and businesses should be informed about the nature and duration of any work well in advance so that they can make necessary preparations;
- **Wooden walkways/planks across trenches for pedestrians and metal sheets where vehicle access is required should be provided;**

Photo #1



Photo #2



Photo #3



Photo #4





- The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project;
- Top soil of at least 10 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activities.

Photo #5	Photo #6
	
<ul style="list-style-type: none"> Trench construction shall be taken up in small segments, so that work (excavation, pipe laying and refilling) in each segment is completed in a day. No trenches shall be kept open in the night/after work hours. 	
Photo #7	Photo #8
	
<ul style="list-style-type: none"> Enough and high visible safety signs/tapes and trench side barriers around of deep open trenches should be installed to avoid accident of population. 	
Photo #9	Photo #10
	
<ul style="list-style-type: none"> Incorrect surplus/waste soil management should be improved by utilizing surplus/waste soil for beneficial purposes such as backfilling or to raise the ground-level of low lying sites. 	

• Neatly areas of resident houses should be clean from construction materials/surplus soil to avoid disturbance of residents and businesses.

Photo #11	Photo #12
	
<p>All these conditions have to be remedied immediately by the Contractor (CC and SC) were instructed on site to immediately improve the situation) as this poses a threat to the local population.</p> <p>Date of site visits: 28 May 2021</p>	
<p>Site was visited by:</p> <p>Mika Godesotshvili Head, Department of Environmental Protection and Permits Liza Chikvashvili Department of Environmental Protection and Permits Kakhaber Chokoshvili UNBCC/USIP Environmental Consultant</p>	<p>Non-compliance Notice Prepared by Kakhaber Chokoshvili</p>

NON-COMPLIANCE NOTICE (GUD-02), 4 June 2021

Urban Services Improvement Investment Project - Georgia		Date: 07/06/2021
		Page 1 of 7
Non-Compliance Notice		
Project: Urban Services Improvement Investment Program, Georgia Contract No: URS05-108-GUD-02 Contractor: Dina Nalair Industry 23 Construction Co., LLC Supervision Consultant: SAFCEE Franchising Engineering Solution LLC Georgia		Non-compliance Notice 06/04/21
Reference: Construction of water supply and sewage system in Sokdast This notice is to advise you, the prime Contractor, as the referenced Contract, of the following notice on environmental measures to be implemented urgently .		
NON-COMPLIANCE IN SOKDAST (GUD-02)		
Water Reservoir, well fields, network		
<ul style="list-style-type: none"> - Construction site should be properly fenced from all sides and equipped with lockable gate - Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory 		
Photos #1, #2		
		
<ul style="list-style-type: none"> - Site internally should be arranged properly and cleaned regularly, including construction materials segregation 		
All sights		
Photo #3, #4, #5, #6, #7		
		



- Top soil of about 15 cm depth should be removed and stored separately in appropriate location and reinstated after completion of construction activities
- Top Soil should be stored properly and better managed (height 2.3 meter, slope 45 degree)

Network

Photo #8, #9, #10



Photo #11



- Safety norms during working at height (adder safety norms) should be provided at sight

Photo #12



- Fuel and lubricants spill containment items (pan, secondary, special containers) at the construction site
- The use of integral trip lugs for generators, tanks and other fixed plant is mandatory throughout the project

Photo #13, Photo #14



- The contractor is required to instruct and train their workforce in the storage and handling of materials and chemicals that can potentially cause soil contamination
- Construction chemicals should be managed properly

All sights

Photo #15, #16, #17, #18



- Storage of all hazardous material to be secure, under strict control and clearly labeling all dangerous products
- There should be a special designated area for municipal and hazardous waste with concrete base, roofing and drainage system
- Hazardous Waste container with relevant indication sign should be installed at the construction area (at the proper organized place with concrete floor and roofing)

Photo #19



Photo #20



- Workers always should use complete PPE including helmets

Photo #21, photo #22



- Wooden walkways/planks across trenches for pedestrians and metal wheels where vehicle access is required should be provided
- Enough and high visible safety signal/lamps and bench side barriers around of deep open trenches should be installed to avoid accident of population

Photo #21, #24



- There are areas with a large amount of concrete mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately

Photo #23, #26



- Cables should be relocated to avoid any damages on lines of power source
- Unsafe connection to the power socket should be immediately improved

Photo #27, #28



- After completion of construction works, proper reinstatement should be ensured (surplus soil) should be removed and the area should be restored with topsoil on private and agricultural land.

Network (private land, agricultural land)

Photo #29, #30



Along the road (sewer wells)

Photo #31, #32



All these conditions have to be remedied within seven days (by the 14.06.2021) by the prime Contractor (Chris Runnar Industry 22 Construction Co., Ltd)

Date of site visits 04.06.2021

Site was visited by:

Mika Goderdzishvili
Head, Department of Environmental Protection and Permits
Liza Chkheidze
Department of Environmental Protection and Permits
Ketevan Chomakhidze
UWSO/USIP Environmental Consultant

Non-compliance Notice Prepared by Ketevan Chomakhidze

NON-COMPLIANCE NOTICE, GUD-02 10 JUNE 2021

Urban Services Improvement Assessment Project - Georgia

Date: 11/06/2021

Page 1 of 5

Non-Compliance Notice

<p>Project: Urban Services Improvement Assessment Program, Georgia Contract No.: UMSIP-02-10-01 Contractor: City of Mableton 23 Construction Co., LLC Supervision Consultant: SARGIS France with Engineering Solution LLC, Georgia</p> <p>Reference: Construction of water supply and sewage system in Sabonir</p> <p>This notice is to advise you, the prime Contractor, on the referenced Contract, of the following notice on environmental measures to be implemented urgently.</p> <p>Construction site should be equipped with Covid-19 prevention facilities, including information barriers and hand and M.S.</p> <p>An HSE specialist should be constantly present on site to ensure compliance of all HSE requirements on a daily basis.</p> <p>Site safety should be installed for workers at all sites.</p> <p>NON-COMPLIANCE IN GUD/02/10 (GUD-02)</p> <ul style="list-style-type: none"> - Construction site should be properly fenced from all sides and equipped with lockable gate - Proper warning and safety signs should be provided at the entrance and perimeter of the construction territory <p>Photos #1, #2 (Reservoir)</p>  <p>Top soil of about 15 cm depth should be removed and stored separately in appropriate location and handled after completion of construction activities. Top Soil should be stored properly and better managed (height 7.0 meter, slope 45 degree).</p> <p>Photo #3 (Network)</p>	<p>Non-compliance Notice Content</p>
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- There should be a special designated area for municipal and hazardous waste with concrete base, roofing and drainage system
- Hazardous Waste container with relevant indication sign should be installed at the construction area (at the proper organized place with concrete floor and roofing)
- Construction waste should be removed timely and proper disposed :

Photo #8



Community and Workers Health and Safety

- Wooden walkways/plates across trenches for pedestrians and metal sheets where vehicle access is required should be provided
- Enough and high visible safety signposts and trench side barriers around of deep open trenches should be installed to avoid accident of population

Photo #9, #10



- There are areas with some amount of concrete spill left on construction site which is mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately

Photo #11 (Well fields)



- Adequate graveling of the construction site should be ensured

Photo #12, #13



- After completion of construction works, proper revegetation should be ensured (surplus soil should be removed and the area should be restored with topsoil) on private and agricultural land.

Photo #14 Network (private land, agricultural land)



All these conditions have to be remedied within 10 calendar days (by the 21.06.2021) by the prime Contractor (Chua Nakhos Industry 23 Construction Co., Ltd)

Date of site visit: 10.06.2021

Site was visited by:

Maku Goderdzishvili
Head, Department of Environmental Protection and
Permits
Liza Chikvashvili
Department of Environmental Protection and Permits
Kalinoshvili Chikvashvili
UWSC/USIP Environmental Consultant

Non-compliance Notice Prepared by Nikoloz
Chikvashvili

NON-COMPLIANCES NOTICE, POT-02, 12 JANUARY 2021

Non-Compliance Notice - შეუსაბამობის რეგისტრაცია

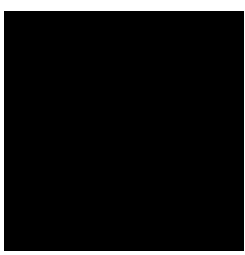
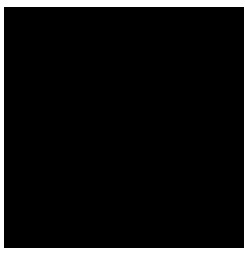
Project / პროექტი: ITP Construction in POTI 02	DATE OF ISSUANCE / გარიგები: 02.05.2021
Contract No. / კონტრაქტი: M3403-02-POTI-02	NON-COMPLIANCE NOTICE N 14
SUBCONTRACTOR / ქვეკონტრაქტორი: TWP Construction LLC	
SITE / მდებარეობა: WWTP POTI - 02	
SECTION / სექცია:	

The subcontractor shall remediate or the referenced Contract following codes on Health, Safety and Environmental measures' (გვერდობის საზღვარსა და გარემოსდაცვითი ღონისძიებების აღწერილი ნიშნების შედეგებისა და დაცვის ღონისძიებების აღწერის კოდექსის შესაბამისად აღმოადგინოს საიტის მდგომარეობა)

DESCRIPTION OF INCIDENT FOR NON-COMPLIANCE OF HEALTH AND SAFETY NORMS / შეუსაბამობის აღწერა:

SAFETY & ENVIRONMENTAL MEASURES / ღონისძიებები ღონისძიებების და გარემოსდაცვითი ღონისძიებები
 * All safety norms must be presented at the construction area / Workers should be equipped with full PPE / საშენებლო ობიექტზე უნდა იყოს ბრძანის უსაფრთხოების ნიშნები (საფრთხო საფარი შენა უნდა იყოს სრულყოფილი ინდივიდუალური დაცვის საშუალებებით)
 * Construction area should be closed regularly / საშენებლო ტერიტორია უნდა იქნას დახურული რეგულარულად

PHOTO DOCUMENTATION / ფოტო დოკუმენტაცია



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Learning Center
Kuala Lumpur



The action should be remedial immediately.
The action should be remedial immediately.

IDENTIFY PLACE / Lokasi

REPRESENTATIVE / Perwakilan

CONTRACTOR REPRESENTATIVE / Perwakilan

NON-COMPLIANCES NOTICE, POT-02, 8 FEBRUARY 2021

Non-Compliance Notice - Զրկանման Որոշում

PROJECT / Տնօրոգիչի Գտնվելու Կետը	CONTRACT No. / ՀԱՄԱՐՆԵՐ ՔԱՅՄԱՆ ԱԾՈՒՄ	DATE OF INCIDENT / Եղանակի ՕՐԱՅԵՐ
SUBCONTRACTOR / Զրկանմանը	Անուն Երան	NON-COMPLIANCE NOTICE No.
NOTE / Նշանակում: N/A		

ACTION / Կարգ:
The subcontractor shall rectify the structural damage following notice on health, safety and environmental matters.
Զրկանմանը պետք է շտկի կառուցվածքային վնասվածքները առողջապահության, անվտանգության և միջավայրի պահպանման հարցերում:

DESCRIPTION OF INCIDENT FOR NON COMPLIANCE OF HEALTH AND SAFETY NORMS / Զրկանման նկարագիր:
SAFETY MATTER / Թերեմուտի շեղում:
All safety norms must be observed in the construction area / Workers should be equipped with full PPE / Կառուցման տարածքում պետք է խիստ ճշգրիտ կատարվեն անվտանգության նորմերը: Արհեստագործները պետք է օգտագործեն բոլոր անհրաժեշտ անվտանգության զինանոցները:

PHOTO DOCUMENTATION / Փոփոխարկումներ

The action should be remedied **immediately**
Կարգը պետք է շտկվի **հարկադրաբար անհապաղ**

SIGNATURE PLACE / Կրկնագրի տեղ

SUBCONTRACTOR / Զրկանմանը	
CONSTRUCTION MANAGER / Տնօրոգիչ	

NON-COMPLIANCES NOTICE, POT-02, 17 MARCH 2021

	
<p>Non-Compliance Notice - Արդյունաբերական Տնտեսություն</p>	
<p>Project / Քաղաքացիական կառուցումներ / POT-02</p> <p>Contract No. / Տնօրենքի համար / PAS03-40-0174-00</p> <p>CONTRACTOR / Կառուցող / F&E Construction LLC</p> <p>WFO / Որոշման համար / WHTF POT-02</p>	<p>DATE OF ISSUANCE / Իրականացման ամսաթիվ / 17.03.2021</p> <p>NON-COMPLIANCE NOTICE N° 15</p>
<p>SECTION / Եզրույթ</p> <p>The subcontractor shall maintain on the construction Contract following notice on Health, Safety and Environmental measures / Կառուցողը պետք է պահպանի ընդհանրացված աշխատանքի վայրում աշխատողներին և շրջակայքի բնակիչներին վնասակար ռիսկերի շտապ դեպքերի լիարժեք կառավարման միջոցները:</p> <p>CONSTRUCTION INCIDENT FOR NON-COMPLIANCE OF HEALTH AND SAFETY MEASURES / Կառուցման ժամանակ ՀԱՅՏԻ և ԵՐԱՄԱՍԻՆԱԿԱՆ ՄԵՐՈՒՄԻ ՄԱՍԻՆԱԿԱՐ ԲՆԱՅՈՒՆՆԵՐԻ ՄԱՍԻՆԱԿԱՐ ԿԱՐԳԻՆԵՐԵՐԻ ՆԱԿԱՐԱԿՆԵՐԸ:</p> <p>* All safety barriers must be presented at the construction area / Կառուցման վայրում պետք է ապահովվի բոլոր անվտանգության արգելափակիչները:</p> <p>Բոլոր անվտանգության արգելափակիչները պետք է ապահովվեն կառուցման վայրում:</p> <p>* Construction area should be closed regularly / Կառուցման վայրը պետք է փակվի կարգապահաբար:</p>	
<p>PHOTO DOCUMENTATION / Վիզուալ փաստաթուղթ</p>	
	
<p>The action should be corrected immediately / Կարողությունը հարկավոր է անհապաղ կարգապահաբար վերականգնվել:</p>	
<p>SUBSCRIBER NAME / Կրթումը</p>	
<p>SUBSCRIBER / Կրթումը /</p>	
<p>CONTRACTOR REPRESENTATIVE / Կրթումը /</p>	

NON-COMPLIANCES NOTICE, POT-02, 6 APRIL 2021

Non-Compliance Notice - **უკომპლიანსო ნიშნობა**

Project / პროექტი: STP Construction in POTI-82	DATE OF ISSUANCE / იშვების თარიღი: 06.04.2021
Contract No. / კონტრაქტის Nომერი: P4305.14.POTI-82	
SUBCONTRACTOR / ქვეკონტრაქტორი: TWP Construction LLC	
SITE / იშვების ვაშტი: POTI-82	NON-COMPLIANCE NOTICE N. 18

ACTION / იგეგმა:

The subcontractor shall remediate on the referenced Contract following notice on Health, Safety and Environmental measures / უკომპლიანსო ნიშნობაში მითითებული ღონისძიებების უწყის აღმოჩენის შემთხვევაში. ღონისძიებები უნდა იქნას აღმოქმედებული დასაბუთების და განმარტების საფუძველზე.

REMEDIAL ACTION PLAN FOR NON-COMPLIANCE OF HEALTH AND SAFETY MEASURES / უკომპლიანსო ნიშნობის აღწერა - SAFETY & ENVIRONMENTAL MEASURES / ღონისძიებების აღწერა და განმარტების საფუძველი

- * All safety signs must be provided at the construction area / **შეშვების ადგილზე უნდა იქნას მოწოდებული უკომპლიანსო ნიშნობის განმარტების საფუძველზე უწყის აღმოქმედებული ღონისძიებების აღწერა.**
- * Construction area should be cleaned regularly / **შეშვების ადგილი უნდა იქნას რეგულარულად გაწმენდილი.**

PHOTO DOCUMENTATION / ფოტო დოკუმენტაცია:




The action should be remedied immediately.
უკომპლიანსო ნიშნობა უნდა იქნას აღმოქმედებული დასაბუთების საფუძველზე.

SIGNATURE PLACE / ხელმოწერის ადგილი

SUBCONTRACTOR / ქვეკონტრაქტორი	
CONTRACTOR REPRESENTATIVE / კონტრაქტორის წარმომადგენელი	

NON-COMPLIANCE NOTICE, POT-02, 2 February 2021

Non-Compliance Notice

Project: Construction Supervision (under USIP, Tranche 4 Projects), UWSOQ/USIP/OCBS/02-2014 Contract No: P43405-IC-POT-02 Contractor: Ludwig Pfeiffer Reference:	Non-compliance Notice Pot 02
This notice is to advise the prime contractor, on the referenced contract, of the following notice on health, safety and environmental matters to be implemented urgently .	
GENERAL COMMENT FOR ALL SITES: Site internally should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations.	
NON-COMPLIANCE IN POT 02 WWTP Pot 02	
<ul style="list-style-type: none"> - Clean all kind of waste daily and store properly under shelters if in the buildings, don't mix waste and construction materials - Install hard barriers at the deep excavations (more than 1.20m); arrange orange net or warning tape at the excavations lower than 1.20m. Install relevant warning signs - Special training should be provided to the staff regarding Housekeeping at the construction site and include this issue in daily Toolbox talks - Lack of warning signs 	
Unacceptable Housekeeping Note: Observe H&S relevant standards (Tripping & Slipping hazard prevention) :	

	
Heavy Equipment work without Plogmen	
	
All these conditions have to be remedied within 10 days by the prime Contractor Ludwig Pfeiffer	
Date of site visit: 02.02.2021	
Shadia Boukhalid - Environmental specialist - "SAHSE"	
Belawan Chermakhshe - Environmental specialist - "UWSOQ"	

NON-COMPLIANCE NOTICE, POT-02, 25 February 2021

Non-Compliance Notice	
Project: Construction Supervision (under USIP, Tranche 4 Project) UNSSC/UNDP/UNICEF/UN-2014 Contract No: P2014-02-0011-02 Contractor: Ludwig Pflafer	Non-compliance Notice POT-02
<p>This notice is to advise the prime Contractor, as the referential Contract, of the following notice on health, safety and environmental matters. It is imperative of urgency.</p> <p>The materials should be arranged properly and cleaned regularly. All construction materials and wastes should be properly segregated and stored adequately. Oil spill response kits should be placed at the appropriate locations.</p> <p>NON-COMPLIANCE IN FIELD</p> <p>HEALTH AND SAFETY</p> <ul style="list-style-type: none"> - Close all kind of waste into the waste properly under workers of in the site; don't reuse waste and avoid reuse materials - Install hand barriers at the deep excavations (more than 1.20m) among orange net or warning tape at the excavations more than 1.20m. Install safety warning sign - Special training should be provided for the staff regarding Housekeeping at the construction site and include that issue in the toolbox talks. - Lack of warning signs <p>Controlable Housekeeping Note: Debris, MIS removal standards (Logging & Slipping hazard prevention)</p>	

	
<p>Heavy Equipment work without Pallets</p>	
	
<p>All these conditions have to be remedied within 10 days by the prime Contractor Ludwig Pflafer</p>	
<p>Date of site visit: 03.02.2021</p>	
<p>State: Goodacetyl - Environmental specialist - "SAFECE"</p>	
<p>National: Chonvachon - Environmental specialist "UNSSC"</p>	

NON-COMPLIANCE NOTICE, POT-02, 28 May 2021

Urban Services Improvement Investment Project (USMIP) - Georgia

Date: 28 May 2021

Page 1 of 4

Non-Compliance Notice

Project: USMIP04	Non-compliance Notice:
Contract No: POT-02 Sub-project	Pot
Contractor: "In-Use" - 2021	
Supervision Consultant: "SAFEQE France with Engineering Solution LLC Georgia"	Site coordinator:
	X 7196287
	Y4679790
Reference:	
Construction of Waste Water Treatment Plant in Pot	

NON-COMPLIANCE (N.POT)

- Site internally should be arranged properly and stored regularly, including construction materials segregation.

Photo #1



Photo #2



- The contractor is required to instruct and train their workforce in the storage and handling of materials and chemicals that can pollute soil and waterways.
- Construction materials should be managed properly.

Photo #3



Photo #4



- Storage of all hazardous material to be safe, under strict control and clearly labeling all dangerous products.
- There should be a special designated area for municipal and hazardous waste with concrete base, roofing and storage systems.

Urban Services Improvement Investment Project (USMIP) - Georgia

Date: 28 May 2021

Page 2 of 4

Photo #5



Photo #6



- There are areas with a large amount of concrete mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately.

Photo #7



Photo #8



- The use of integral dkip trays for generators, tanks and other fixed plant is mandatory throughout the project.

Photo #9



Photo #10



- Cable should be relocated to avoid any damages on users of power sockets;
- Unsafe connection to the power socket should be immediately improved;

Photo #11



Photo #12



- Top soil of about 10 cm depth shall be removed and stored separately in appropriate location and not damaged by improper storage of construction materials;

Photo #13



Urban Sanitation Improvement Investment Project (USIP) - Georgia

Date: 28 May 2021

Page 6 of 8

- The whole construction area should be fenced adequately.

Photo #14



Photo #15



All these conditions have to be remedied within the 5 calendar days by the Contractor (CC and SC were instructed on site to immediately improve the situation).

Date of site visit: 28 May 2021

<p>Site was visited by:</p> <p>Mina GodesLashvili Head, Department of Environmental Protection and Permits Liza Chovelidze Department of Environmental Protection and Permits Kolevan Chomakhidze UWSCG/USIP Environmental Consultant</p>	<p>Non-compliance Notice Prepared by Ketevan Chomakhidze</p>
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ANNEX D: CORRECTIVE ACTION PLAN (POT-02), 28 May 2021

Urban Services Improvement Investment Project (USIP) - Georgia

Date: 07 June 2021

CORRECTIVE ACTION PLAN

Project: USIP/T4	Corrective Action Plan:
Contract No: POT-02 Sub-project	Pot
Contractor: JV "Peltier - EMIT"	
Supervisor Consultant: SAPEGE France with Engineering Solution LLC Georgia	Site coordinates:
	X: 7 03257
	Y: 4875750
Reference:	
Construction of Waste Water Treatment Plant in Pot	

- Site internally should be arranged properly and cleaned regularly, including construction materials segregation.

Photo #1



Photo #2



Corrective actions:

For photo #1 & #2



Urban Services Improvement Investment Project (USIP) - Georgia

Date: 07 June 2021

- The contractor is required to instruct and train their workforce in the storage and handling of materials and chemicals that can potentially cause soil contamination;
- Construction chemicals should be managed properly.

Photo #3



Photo #4



Corrective actions for Photo #3 & 4
Construction chemical is stored properly.



- Storage of all hazardous material to be safe, under strict control and clearly labeling all dangerous products;
- There should be a special designated area for municipal and hazardous waste with concrete base, roofing and drainage system;

Photo #5



Photo #6



Corrective actions for Photo #5-6

Concrete base for household waste is prepared.



- There are areas with a large amount of concrete mixed with the soil in the construction area. Excess concrete should be cleaned and removed immediately;

Photo #7



Photo #8



Corrective actions

For Photo # 7&8

The soil is cleaned, Concrete is removed.



- The use of integral drip trays for generators, tanks and other fixed plant is mandatory throughout the project

Photo #9



Photo #10



Corrective actions

For Photo #9&10.

Excavator buckets and other tools are stored properly.



- Cable should be relocated to avoid any damages on users of power source;
- Unsafe connection to the power socket should be immediately improved;

Photo #11



Photo #12

- Topsoil of about 15 cm depth shall be removed and stored separately in appropriate location and not damaged by improper storage of construction materials;

Photo #13



Corrective actions



- The whole construction area should be fenced adequately

Photo #14



Photo #15



Corrective actions

Construction area is already fenced with temporary fence. Final fencing works are in process.



All these conditions have to be remedied within the 5 calendar days by the Contractor (CC and SC were instructed on site to immediately improve the situation)

Corrective Action Plan was prepared by:

PFEPFER - EMIT LTD
HSE - Eni Mokis

ANNEX E: NEAR MISSES REPORT, 1 February 2021

85

Learning Through
Incident and Defect

Incident Investigation - Supervisor's Report



Project: Urban Services Improvement Investment Program "Construction of a New Wastewater Treatment plant (WWTP) in Poti (No: P8405-ICB-POTI-02)".

EMPLOYEE DETAILS

Name: Badri Sherozia
Position: Worker of TMP Construction LLC
Address: Poti-02

INCIDENT DETAILS

Date of Incident: 01 February 2021, 10:00
Date Reported: 01 February 2021
Supervisor: Eni Mukia

Describe of the Incident

The accident was reported on 01-Feb-2021 at approx. 10:00 am.
Worker of TMP Construction LLC climbed on an improper scaffolding construction without any health and safety protections.
Approximate height of building was 4 meter.
All workers are trained and informed about safety works on height.
Subcontractor was informed about above mentioned accident. They must ensure that workers have the appropriate safety equipment available to them, depending on the type and height of scaffolding in use, this may include a hard hat and full body harness, and an independent lifeline anchorage.

Actions to be taken

The worker of TMP Construction LLC was warned about an impending or possible danger, problem, or other unpleasant situation.



Supervisor's signature:

A handwritten signature in blue ink, appearing to read "Eni Mukia".

NEAR MISSES REPORT, POT-02, 8 February 2021



Incident Investigation - Supervisor's Report



Project: Urban Services Improvement Investment Program "Construction of a New Wastewater Treatment plant (WWTP) in Poti (No: PASAS-ICB-POTI-02)".

EMPLOYEE DETAILS

Name: Valeri Gogilava
Position: Worker of TMP Construction LLC
Address: Poti-02

INCIDENT DETAILS

Date of Incident: 08 February 2021, 10:00
Date Reported: 08 February 2021
Supervisors: Eni Makha

Describe of the Incident

The accident was reported on 08-Feb-2021 at approx. 12:05 pm.
Worker of TMP Construction LLC climbed on construction without safety protections.
Approximate height of building was 3 meter.
All workers are trained and informed about safety works on height.
Subcontractor was informed about above mentioned accident. They must ensure that workers have the appropriate safety equipment available to them, depending on the type and height of scaffolding in use, this may include a hard hat and full body harness, and an independent lifeline anchorage.

Actions to be taken

The worker of TMP Construction LLC was warned of an impending or possible danger, problem, or other unpleasant situation.



Supervisor's signature:

ANNEX F: WEEKLY MONITORING CHECKLISTS, POT-01

ყოველკვირეული განმეორებადი ან მონიტორინგის მონაცემების ანგარიში
Weekly Environmental and H&S Monitoring Report

Place: POT1		Reporting period from 07/06/2021 to 13/06/2021	
Name of the Contractor and project number/სამშენობელი კომპანიის სახელი და პროექტის ნომერი		Lobby Hall in Revised Thelma Smith 4 School (Borjomi) ლობი-ჰალი რევიზიის მისი უნივერსიტეტი და კოლეჯი (ბორჯომი) სამშენობელი კომპანია 4-შკოლა-4-ბორჯომის ქ. (პროექტი: P0260-NCB-POT-02)	
Contract #/კონტრაქტის №		No. FICAR-03-POT1-00	
Description and Location of the site/სამშენობელი სივრცის ადგილმდებარეობის აღწერა		The project area is located in Poti, Georgia. შიშველი ხორციელებს ქ. პოტიში, საქართველოში.	
Name of the Employer / Implementing Agency/კონსტრუქციული სააგენტო		United Water Supply Company of Georgia, LLC. შპს "უნიტ-უატი" (საქართველოს ერთიანი წყარების მოწოდების კომპანია)	
Supervision Company/სარეგულირებელი კომპანია		SAPSC Consulting Engineers/საპროექტო ინჟინერები	
Short description of Works/სამშენობელი სამუშაოების მოკლე აღწერა		Civil, Mechanical and Electrical works for STP Construction in Poti. სანიაღვრე, მექანიკური და ელექტროსამშენობელი სამუშაოების განხორციელება პოტისში. მშენებლობის სამუშაოები.	
შემთხვევები			
Subcontractor GED BINT, Activities: Demolition of ground floor concrete structure, foundation concrete pouring works.			
Subcontractor – PRIME CONCRATE, Activities: "სამშენობელი".			
Subcontractor – TMP Construction LLC, Activities: Installation of reinforcement and formwork, casting concrete.			
Subcontractor – B&B "საშენობელი-ბიზნესი", Activities: Installation of reinforcement and concrete works, laying of tiles.			
If FREETEST UNIT - Copy of nearest police station - /თუ FREETEST UNIT-ს მისი მდებარეობის ადგილი.			
If FREETEST UNIT - Status of works as approved.			
Who is responsible for environmental H&S at the site/სამუშაოს განხორციელებისას გარემოსდაცვითი და უსაფრთხოების მართვა		Name: Bori Moku	Signature: 
Who is Environmental and H&S Representative/სამუშაოს გარემოსდაცვითი და უსაფრთხოების მართვის წარმომადგენელი		Name: Nikoloz Nephartia	Signature: 

ყოველკვირეული განმეორებადი ან მონიტორინგის მონაცემების ანგარიში
Weekly Environmental and H&S Monitoring Report

N	Decisions and Observations to be Reported/შეამოწმებელი გადაწყვეტილებები და დაკვირვებები	Yes/No/Partly			Remarks/Comments
		Yes	No	Partly	
1. EMP/SEMPs, Protocols and Reports					
1.1	Contractor site-specific Environmental Management Plan (SEMP) is prepared, reviewed and approved by Employer prior to contractor commencing the works. სამშენობელი სამუშაოს დასაწყისში გარემოსდაცვითი მართვის აგეზი, შემუშავებული და დამუშავებული იქნა/შეამოწმდა მფლობელის მიერ, სამშენობელი სამუშაოს დასაწყისში.	✓			(All documents requested by the H&S were kept on camp including monitoring measures of site) ყველა საჭირო დოკუმენტი ინახეს (საიტზე).
1.2	Health and Safety Management Plan is prepared and approved. მუშაობისას და მოვლასთან დაკავშირებული უსაფრთხოების მართვის აგეზი და განხორციელების მონაცემები შეამოწმეს მფლობელის მიერ/შეამოწმა.	✓			
1.3	Completion log book exists on site. სამუშაოს განხორციელებისას ინახეს/სამუშაოზე არის.	✓			Completed log book was kept at the camp site. სამუშაოს განხორციელებისას არის/სამუშაოზე.
1.4	Site inspection NCRs (non-compliance reports) about Environmental issues were issued and corrective actions were implemented. მუშაობისას შედგენილი იქნა/შეამოწმდა გარემოსდაცვითი პრობლემების და შეცდომების შესახებ ანგარიშები/შეამოწმდა.	✓			Weekly Environment Monitoring Report
1.5	Training protocols about H&S are prepared and signed by employees. Records are kept on site. სწავლების ანგარიშები და დოკუმენტები შემუშავდა/შეამოწმდა მუშაკების მიერ/განხორციელდა და ინახეს/სამუშაოზე არის.	✓			
2. Permits, Licenses and Contracts					
2.1	The Contractor has a Permit from the Municipality or relevant contract for final disposal of excavation materials. სამშენობელი სამუშაოს დასრულების შემდეგ ან მუშაობისას კონსტრუქციის დასაშენებელი ნაგებობისთვის.	✓			
2.2	The Contractor has a permit for disposal of communal waste. კონსტრუქციის სამუშაოს დასრულების შემდეგ საყოველთაო ნაგებობის ნაგებობისთვის.	✓			
2.3	The Contractor has the contract with the licensed organization for the handling and disposal of hazardous waste. კონსტრუქციის სამუშაოს დასრულების შემდეგ საყოველთაო ნაგებობის ნაგებობისთვის.				
3. Performance of civil works					
3.1	Arrangement of lockable gate with standard warning and information signs. საიტის შესასვლელი კარი/შესასვლელი, სტანდარტული განმეორებადი და ინფორმაციული ნიშნების დაყენება.	✓			lockable gate with standard warning and information signs is arranged. შესასვლელი კარი/შესასვლელი, სტანდარტული და ინფორმაციული ნიშნების დაყენება.

საქართველოს გარემოსდაცვითი და შრომის უსაფრთხოების მონიტორინგის რეპორტი
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3.2	Placement of standard warning and information signs at the perimeter and inside of construction area. საშენობლო ტერიტორიაზე და შენიშვების სარეზონანსო კარგობრივობა და საინფორმაციო ნიშნების განთავსება	✓			All necessary warning signs are installed in construction area. Additional signs will be placed when needed. ყველა აუცილებელი ნიშანი გამოქვეყნდა საშენობლო ტერიტორიაზე. სხვა ნიშნები დაინიშნება საჭიროების მიხედვით.
3.3	Installation of safety signposts and branch size barriers around of open trenches and dangerous areas (for example, electrical cables, hot pipes, etc.) საშიშროების ნიშნების და სასაფრთხოების ბარიერების განთავსება	✓			There are no open trenches yet. ყველა საშიშროების ნიშანი და ბარიერი დაინიშნა და კვლევის არას.
3.4	Storage of waste of the shop (more than 1.0m) by means of 1.0 height fence. 1.0 მეტრზე მაღალი ხაზობანი კარგობრივობის განთავსება	✓			There are no open trenches yet. ყველა საშიშროების ნიშანი და ბარიერი დაინიშნა და კვლევის არას.
3.5	Placement of top soil (not less 30 cm depth) and separately storing in appropriate place. ცენტრალური დონის ნიადაგის დაცვა (საშენობლო 30-30 სმ სისის) დონის ნიადაგის და განვალადების კარგობრივობა				Top Soil is stored in appropriate place separately. (45444) cm. ნიადაგის იმის დახრახრების ნიადაგის ნიშნების განთავსება კარგობრივად.
3.6	Provision adequate lighting at construction territory. საშენობლო ტერიტორიის განათების განთავსება	✓			Construction area is lit from party. საშენობლო ტერიტორია განათდა ნიადაგით.
3.7	Storage of construction machinery/equipment is in accordance with environmental requirements. საშენობლო ტერიტორიის მანქანების შენახვის ინსტრუქციის და საინფორმაციო ნიშნების განთავსება				
3.8	Placement of proper Hazardous Waste container at the special dedicated place with relevant indication signs (for example "Hazardous Waste"). საშენობლო ტერიტორიაზე საშიშროების ნიშნების განთავსება კარგობრივად და შესაბამისი ნიშნების განთავსება (მაგ. "HAZARDOUS WASTE")	✓			Hazardous Waste containers are placed at special place with relevant signs. საშიშროების ნიშნების განთავსება კარგობრივად და შესაბამისი ნიშნების განთავსება.
3.9	Placement of proper Hazardous Waste container of the special dedicated place with relevant indication signs (for example "Hazardous Waste"). საშენობლო ტერიტორიაზე საშიშროების ნიშნების განთავსება კარგობრივად და შესაბამისი ნიშნების განთავსება (მაგ. "HAZARDOUS WASTE")	✓			Hazardous Waste container is placed at special dedicated place with relevant indication signs. საშიშროების ნიშნების განთავსება კარგობრივად და შესაბამისი ნიშნების განთავსება.

3

საქართველოს გარემოსდაცვითი და შრომის უსაფრთხოების მონიტორინგის რეპორტი
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3.10	Arrangement of proper Parking area at the adjacent place (outside of construction territory with relevant sign (for example P)). საშენობლო ტერიტორიაზე და შენიშვების სარეზონანსო კარგობრივობა და საინფორმაციო ნიშნების განთავსება (მაგ. P)	✓			Proper parking area for cars is arranged at the adjacent place. საშენობლო ტერიტორიის მიწის მიწოდების კარგობრივობა და საინფორმაციო ნიშნების განთავსება.
3.11	Use of special safety equipment during working at heights (for example, safety harness, etc.) საშენობლო მშენებლის და ნიშნების სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება (მაგ. P)	✓			During transportation of construction materials (in case) tarpaulins will be used. საშენობლო ტერიტორიის მანქანების და საინფორმაციო ნიშნების განთავსება კარგობრივად და შესაბამისი ნიშნების განთავსება.
3.12	Ensure that all workers are provided with and use appropriate Personal Protective Equipment - helmets, hard gloves, boots, masks, safety belts. მუშების და ინჟინერებისთვის სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება (მაგ. P)	✓			One set is always on the place for visitors. ყველა კომპლექტი სარეზონანსო კარგობრივად და შესაბამისი ნიშნების განთავსება.
3.14	Use of special safety equipment during working at heights (for example, safety harness, etc.) საშენობლო მშენებლის და ნიშნების სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება (მაგ. P)	✓			During works at heights special safety equipment will be used. საშენობლო მშენებლის ნიშნების სარეზონანსო კარგობრივად და შესაბამისი ნიშნების განთავსება.
3.15	Regularly cleaning of construction territory. საშენობლო ტერიტორიის სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება	✓			Cleaning works of territory is conducted regularly. ტერიტორიის სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება.
3.16	Washing construction site to avoid dust generation. საშენობლო ტერიტორიის სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება		✓		ყველა ნიშანი სარეზონანსო კარგობრივად და შესაბამისი ნიშნების განთავსება.
3.17	Storage, Classify and Labeling of Cutting steel on the construction territory. საშენობლო ტერიტორიაზე ინჟინერების ნიშნების განთავსება კარგობრივად და შესაბამისი ნიშნების განთავსება	✓			All stored steel were classified, numbered and was transported by UWSOG. გამოქვეყნდა ყველა ნიშანი სარეზონანსო კარგობრივად და შესაბამისი ნიშნების განთავსება.

4

საქართველოს გარემოსდაცვითი და შრომის უსაფრთხოების მონიტორინგის რეპორტი
Weekly Environmental and H&S Monitoring Report

N	Documents and Observations to be Reported დოკუმენტები და დაკვირვებები	Yes	No	Partially	Remarks/ Comments
4. Monitoring Measurements					
4.1	Monitoring measurement data (air, water, soil, noise, vibration, etc.) საშენობლო ტერიტორიაზე და საინფორმაციო ნიშნების განთავსება	✓			Will be conducted by the National Environmental Agency. განხორციელდება გარემოს დაცვის ეროვნული სააგენტოს მიერ.
5. Safety Measures					
5.1	The workers use all personal safety equipment required to individual technological processes (helmets, gloves, respirators, glasses, etc.) მუშებისთვის აუცილებელი სარეზონანსო კარგობრივობის და საინფორმაციო ნიშნების განთავსება	✓			All workers are equipped by PPE. ყველა მუშისთვის აუცილებელი სარეზონანსო კარგობრივად და შესაბამისი ნიშნების განთავსება.
5.2	Brief training about HSE and Environmental issues every coming. საშენობლო ტერიტორიაზე ინჟინერების ნიშნების განთავსება	✓			All workers are instructed every day. ყველა მუშისთვის აუცილებელი სარეზონანსო კარგობრივად და შესაბამისი ნიშნების განთავსება.

Figure 1: Construction site showing the foundation and early structure of the building.



Figure 2: Construction site showing the foundation and early structure of the building.



**ANNEX G: GENERAL GUIDELINES RELATED TO INFECTION (COVID-19)
CAUSED BY NOVEL CORONAVIRUS (SARS-CoV-2) FOR
CONSTRUCTION SECTOR**



MINISTRY OF INTERNALLY DISPLACED
PERSONS FROM THE OCCUPIED
TERRITORIES, LABOUR, HEALTH AND
SOCIAL AFFAIRS OF GEORGIA

Labour-Coronavirus Expertise Department
Come Together Safely Working Separately

Annex №2

General Guidance Related to Infection (COVID-19) Caused by Novel Coronavirus (SARS-CoV-2) for Construction Sector

Note: In accordance with Order №20/19 of the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia on "Measures for Examining the Situation among Employees, Their Safety and Issues of Domestic Work", the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia will issue an equivalent document to the already issued one (Medical Certificate) to persons quarantined in order to prevent the spread of coronavirus. The document will serve as the basis for issuing monthly payments and therefore, the working days spent on quarantine or in self-isolation will be legitimate and fully paid to the employee. In order to get the certificate, an interested person has to apply to the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia.

For further information, please contact:

☎ 12 00

☎ 116 001

StopCoV.ge

The job of workers involves constantly changing work places and work activity, making it essential to maintain the safe status, in terms of their personal protective gear, within the facilities and across various site-specific or even national boundaries. Nevertheless, it is important to monitor the following protective measures continuously and:



The call must be applied to the workers if they:

- Left the affected country over the past 14 days
- Were in close contact with affected persons/people for the past 14 days (they must be well-isolated/quarantined as per the rules)
- Have symptoms of respiratory infection (coughing, sneezing, sweating, difficulty in breathing, general weakness, ...)
- Are among the ones who face high risk of getting infected with COVID-19 in various circumstances: over 70 years of age, people suffering from chronic disease (cardio-vascular disease, diabetes, bronchial asthma and other respiratory disease).

Employer's responsibilities:

- Whether or not the facilities of infection is detected, employer should develop an emergency action plan to support reduction of working place related to disease, and in case of detection – prevention of spread.
- Provide employees with information about safe working procedures and about prevention of virus spread (guide with the recommendations defined by ILOP, ¹ *Schweitzer National Centre for Disease Control and Public Health of the Ministry of Economic Development from the Kingdom of Morocco, Labour, Health and Social Welfare Strategy*).
- Update the working space post-implementation COVID-19 and about the preventive measures that have been identified by ILOP, ¹ *Schweitzer National Centre for Disease Control and Public Health*.
- In relation to the employees who are working job remotely (administrative personnel) ensure as much as possible use of such working mode;
- In the situation of high concentration zones (place of working site of the relevant machinery, sign-making);
- Provide hand-washing facilities, water soap and other disinfectants. If hand-washing facilities is not feasible, at least 70% alcohol-based hand cleaning liquid should be used;
- Visibly show the hand sanitizers and post the rules of their proper use;
- Make sure that employees have access to hand sanitizers and are aware of their use with proper rules;
- Provide all employees and contractors personnel (responsible for checking and information flow) address procedures measures to avoid spread of coronavirus in the working environment;
- Train the employees in proper use and further strengthening of personal protective equipment and disinfectants.

- Depending on their work specificity, provide the employees with necessary personal protective equipment (protective clothing, protective shoes, helmet, gloves, respirator) and establish control on their use;
- Periodically, several times a day ensure natural ventilation of closed spaces/facilities;
- At certain periodicities, disinfect frequently used working equipment and working places;
- Maintain organization at construction site. Ensure timely clearing of working space and timely disposal of construction waste;
- For employees and visitors ensure closed containers for used disposable tissues and other used hygiene waste in the working space.

Employees' responsibilities

Ensuring proper hand hygiene regularly and thoroughly is the best way to be protected from most of the viruses. Therefore, it is necessary to take the following measures in the workplace:

- Follow hygiene rules in your workplace;
- Carry out the working process in accordance with emergency situation action plan defined by employer/occupational safety manager;
- When greeting do not shake hands and avoid contact with others (touching etc.);
- Avoid gatherings, it is recommended not more than 10 people in one working platform by keeping a safe distance (at least 2 m);
- While performing your work, fully use personal protective equipment provided by the employers;
- Treat with disinfectants the working places and tools used in the course of the work;
- Before and after taking meals, before and after using the restroom (thoroughly wash your hands with soap and water. After washing dry your hands well);
- If you can not wash and dry your hands, use alcohol-based hand sanitizers;
- Keep safe distance (at least 2 m);
- While coughing or sneezing, cover the face with a clean tissue or elbow and place used disposable tissue in the waste bin;
- Avoid touching your eyes, nose and mouth with your hands.



ANNEX H: EMERGENCY MANAGEMENT PLAN



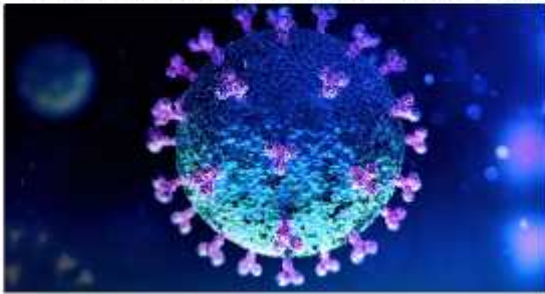
SAFEGE



Georgia: CONSTRUCTION SUPERVISION CONSULTANCY SERVICES
FOR URBAN SERVICES IMPROVEMENT INVESTMENT PROJECT (USIIP)

Financed by the Asian Development Bank and Government of Georgia

COVID-19 Emergency Management Plan in Construction Sector



Prepared by: **SAFEGE** - Supervision Consultant
Tbilisi, Georgia

For: Ministry of Regional Development & Infrastructure (MRDI)
United Water Supply Company of Georgia (UWSCG)

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1. PREAMBLE

1.1 Project Description

- The Urban Services Investment Treatment Program was developed as the Government's response to the need to improve water supply, sewerage and sanitation in urban areas of Georgia. This is intended to optimize social and economic development in selected urban areas through improved urban water and sanitation services, and is financed by the ADB through its Multi-Transfer Financing Facility. The Ministry of Regional Development and Infrastructure is the executing Agency and the "United Water Supply Company of Georgia", LLC is the implementing Agency of the Investment Program. UWSOG is a 100% state-owned company.
- The Investment Program will improve infrastructure through the development, design and implementation of a series of subprojects, and proceed to improvements in a particular sector (water supply and/or sewerage) in one town. Subprojects will rehabilitate existing infrastructure and/or create new and expanded infrastructure to meet the present and future demand. Water supply improvements will include source augmentation and head works, pumping systems, treatment facilities, transmission and distribution network, and, sewerage improvement works will include sewer network, pumping stations, main collectors and wastewater treatment plants.
- Activities of the investment program include:
 - Construction of Water Supply System in Zugdidi (Sub-01 - Contract No: P1425-ICB-24p-01)
 - Construction of Sewerage System in Poti (Pot-01 - Contract No: P4385-ICB-Pot-01)
 - Construction of Wastewater Treatment Plant in Poti (Pot-02 - Contract No: P43425-ICB-Pot-02)
 - Construction of Water Supply System in Jvari (Jvari-01 - Contract No: P4445-ICB-Jvari-01)
 - Construction of Sewage Collector and Water Supply System in Gushaki (UWSOG-ICB-GUD-02-2020-GUD-02)
- Construction of Water supply system in Zugdidi (Sub-01). The project comprises of the construction of 1 water supply pumping station – 1,170 m³; construction of new reservoir (3,300 m³); distribution network – laying of approximately 220 km water supply pipelines; approximately 35 km transmission main; wells – drilling of 10 drinking water wells.
- The contract SUB-01 was signed on October 26, 2015 with AS Inshov, M, LLC (Georgia), the construction works were completed in September 2018 and further extended until June 2020 due to the additional construction works under VDB4 and VDB6: Construction of Additional Sewage Network Connections and Sewerage Pumping Stations of Anaklia.
- VDB4 and VDB6 under the SUB-01 sub-project include:

Connection of residential houses

- Construction of residential houses in Garmakhtan resort to main sewer line: l=1140.7m, n=203 houses;
- Construction of residential houses in Anaklia resort to main sewer line: l=5728 m, n=212 houses;
- Installation of pumps of previously constructed Pumping Stations with electrical connection and installation of automation cabinets for them – 20 pieces; Purchase and installation of pumps with automatics 4 pieces;
- Connection of two apartment buildings of the Ministry of Internal Affairs with self-flowing corrugated pipeline: d=100 mm, l=211.

Installation of Pump Stations

- Installation of # 22 Pump Stations (PS) and connection to existing pressure pipe (d=160 mm) for backflow to new Sewage Treatment Plant in Garmakhtan;
- Installation of # 33 Pump Stations (PS). Arrangement of pressured pipeline (d= 205 mm, l= 1813m) and connection to existing l= 2400m same pipe. Arrangement ramp connection on the main channel with a steel casing pipe (d=430mm / 3mm, l= 21m) and 13 overpasses above the d: 1m small drainage pipe with a steel casing pipe (d: 430mm / 3mm, l= 8m) in Anaklia.

Rehabilitation of Water Supply and Sewerage Distribution Network

- Installation of a new sewer pressure pipe (d= 150 mm, l= 204m) with a steel casing pipe (d= 125mm / 6mm, l= 6m) to connect the "Anaklia" Hotel, crossing the ditch and road;
- The existing water supply – d= 250mm rehabilitation and replacement was carried out using d= 200 mm, l= 340m of the new pipeline.

- Construction of Sewerage System in Poti (POT-01). Pot-01 project includes the construction of 112.4 km of new sewerage pipes, and construction of 28 sewage pumping stations. United Water Supply Company of Georgia signed a contract with TAWAL Group BV on 20 December 2017. The final date of completion of the contract is July 31, 2020.
- Construction of Wastewater Treatment Plant in Poti (POT-02). The project comprises of the construction of new Wastewater Treatment Plant with the capacity of 11,663 m³/day for Poti. The contract for construction of WWTP in Poti was signed on December 21, 2017 with TU "Pfeffer - EMIT" completed by "Ludwig Pfeiffer Hoch- und Tiefbau GmbH & Co. KG (Germany)" and "EMIT Group – Ercole Marelli Impianti Tecnologici S.r.l. (Italy)". The final date of completion of the contract is July 31, 2020.
- Construction of Water Supply System in Jvari (JVA-01). The major works to be implemented for rehabilitation and improvement of Jvari water supply system are following: construction of wells on the well field near the village (6); installation of about 4 km long transmission pipeline; replacement of distribution pipes in the town; rehabilitation of existing reservoir or

construction of new one depending on results of detailed investigation) construction of new pump station.

10. The contract for implementation of RA-01 was signed on January 17, 2017 with AS Inchaat-N, LLC (Azerbaijan). The date of completion of the contract is April 2020 and further extended to September 2020.
11. Construction of Sewage Collection and Water Supply System in Gudauri (GUD-02). The major works to be implemented for rehabilitation and improvement of Gudauri sewage collection and water supply system, including construction of well field, Raw Water Reservoir of 300m³, water pipes and sewage collection system.
12. The contract for implementation of GUD-02 sub-project was signed on 4 January 2019 with "China Nuclear Industry 28 Construction Co." LTD (CNI28). The date of completion of the contract is April 2021.
13. Supervision Consultant for T4 of USIP, Supervision Consultant for Tranche 4 of USIP is "SAFEGE France with Engineering Solution LLC Georgia".

1.2 Coronavirus

14. Coronaviruses are a large family of viruses that cause respiratory infections. These can range from the common cold to more serious diseases. Coronavirus (COVID-19) is a disease caused by a new form of coronavirus. It was first reported in December 2019 in Wuhan City in China.
15. Health authorities around the world believe the coronavirus (COVID-19) is spread from close contact with an infected person, mostly through face-to-face contact or between members of the same household. The coronavirus (COVID-19) is spread by people with symptoms when they cough or sneeze. People may also pick up the coronavirus (COVID-19) from surfaces contaminated by a person with the infection.
16. Studies suggest that COVID-19 may persist on surface for a few hours or up to several days. This may vary under different conditions such as the type of surface, temperature or humidity of the environment.
17. A coronavirus infection can cause mild to severe respiratory illness. The most common coronavirus (COVID-19) symptoms reported are:
 - Fever
 - Breathing difficulties and breathlessness
 - Cough
 - Sore throat
 - Fatigue or tiredness.
18. Coronavirus (COVID-19) is most likely to spread from person-to-person through:
 - Close contact with an infected person.
 - Touching objects or surfaces (such as door handles or tables) contaminated by a person with the infection.
19. Close contact meant having face-to-face contact for more than 15 minutes with someone who has a confirmed case of coronavirus (COVID-19) – or alternatively sharing a closed space with them for more than two hours.
20. Close contact can happen in many ways, but examples include:
 - Living in the same household or household-like setting (for example, a boarding school or hotel)
 - Direct contact with the body fluids or laboratory specimens of a confirmed case
 - Being in the same room or office for two hours or more.
 - Face-to-face contact for more than 15 minutes in some other setting such as in a car or a lift or sitting next to them on public transport.

2. PURPOSE

21. The purpose of this document for the Construction sector, is to:
 - Provide direction to employers and workers
 - Outline the steps to be taken to best provide a safe and healthy environment, and
 - Identify the action available in the event of interruption to building and construction work, as a result of the coronavirus (COVID-19) pandemic.
22. The Document is intended to have application across all sectors of the building and construction sector. Construction sites are diverse and vary in complexity. To allow for flexible interpretation of these guidance, it is recommended that employers apply a risk-based approach and implement reasonably practical controls based on the environment and specific hazards at each construction site.
23. This Document have been developed to maintain the safe operation of construction sites, ensuring the safety of workers.
24. Following of these recommendations these is necessary to minimize and avoid the closure of any construction site.
25. The recommendations apply to all personnel attending on a building and construction site or project, whether management, staff, employees, contractors or service providers.

3. CONTROLLING RISKS ON SITE

26. To assist with providing and maintaining safe operations during coronavirus (COVID-19) the below measures should be implemented to assist in providing a safe and healthy environment at work:

- Screening workers coming to site
- Workplace Mapping
- Physical Distancing
- Hygiene
- Shared Tools, Plant and Equipment
- Cleaning and Disinfecting
- Personal Health
- Personal Protective Equipment
- Common Areas
- Inspections
- Travel
- General Communications
- Other measures
- Vulnerable workers

3.1 Screening workers coming to site

27. To minimise the risk of transmission of coronavirus (COVID-19) on site, employers must implement a two-phase screening process: phase one being an initial declaration and phase two or going daily screening.

28. Initial declaration is to be conducted by all workers (this includes any person who attends site), including current and new starters. Each worker must provide a declaration that they to the best of their knowledge:

- have not been diagnosed with coronavirus (COVID-19) in the last 14 days, or
- are not in a period of 14 day quarantine as directed by a health professional, or
- have not been overseas in the last 14 days, or
- have not been in contact with anyone who has coronavirus (COVID-19), or
- have not been in contact with anyone who is currently being tested for coronavirus (COVID-19), or
- do not have anyone in their household who has symptoms consistent with COVID-19.

29. Once the initial declaration has been made by the worker, ongoing screening (phase 2) should be conducted for every worker prior to the start of their shift, asking to the best of their knowledge:

- have they been overseas in the last 14 days, or
- have they been in contact with anyone who has coronavirus (COVID-19), or
- have they been in contact with anyone who is currently being tested for coronavirus (COVID-19), or
- do they have anyone in their household who has symptoms consistent with COVID-19.

30. If a worker declares any of the above they may be required to self-isolate.

31. Screening should be conducted, whilst maintaining safe distances or over the phone before entering site, on a mobile app, via text message system, or other non-contact methods. It is advisable to have a system in place that limits the sharing of pens/ notebooks/ computers etc.

32. If a worker has recently had close contact with a confirmed case, they need to:

- self isolate at home for a period of 14 days and follow the self isolation Guidelines.
- not attend work
- contact their employer
- seek urgent medical attention if they have symptoms consistent with COVID-19
- not return to work until they have been cleared by a medical practitioner.

33. If a worker is experiencing symptoms consistent with COVID-19 or had close contact with a confirmed case, they must:

- not attend work
- contact their employer for further advice and;
- not return to work until they have been cleared by a medical practitioner.

3.2 Workplace Mapping

34. In the event of an employee being confirmed as having COVID-19, those who are potentially affected need to be quickly identified.

35. Employers should implement processes to record the schedule and work locations for workers that enables tracing of those who have come into contact with the confirmed case.

36. The record should include:

- day and time work was undertaken
- members of teams that worked together
- specific work area on the construction site

- any breaks taken, including time and location

37. Movement between sites, or areas within large sites, should be minimized as much as possible.

38. Where attending multiple sites is necessary (e.g. for H&S, first aiders, emergency wardens) movement between sites should be recorded in the workplace mapping.

3.3 Physical Distancing

39. Physical distancing of at least 1.5-2 meters should be implemented whenever possible. Employers should consider each work task and whether there is a safe alternative way to undertake the work with an increased distance between workers.

- Mark safe distances in work, transit and break areas (e.g. on floors and walls).
- Consider different shift patterns to minimize the number of workers onsite (e.g. AM/PM shifts).
- Stagger start times, breaks and finish times to avoid congestion in high traffic areas and minimize workers coming into contact with each other as they move around the site.
- Plan for how physical distancing will be maintained during inclement weather (e.g. use of lunch or sit rooms and amenities).
- Install temporary physical barriers (e.g. fences, screens) between work areas, where appropriate.

40. Where it is not possible to undertake work tasks and maintain physical distancing, other control measures need to be implemented, for example:

- Minimize the number of worker to worker interactions that need to be completed within 1.5 meters
- Minimize the number of workers involved in activities that need to occur within 1.5 meters of each other
- Provide personal protective equipment (PPE) (e.g. gloves, masks, glasses).

41. Where essential work activities need to be undertaken in restricted spaces (e.g. lift shafts, personnel hoists, lifts), the number of workers working in the space should be minimized.

3.4 Hygiene

42. Good hygiene practices and general cleaning helps with minimizing the spread of coronavirus (COVID-19). Employers should review general hygiene requirements and the cleaning regimes in place.

43. Employers should display health information in prominent locations on the construction site such as tea rooms, site offices, toilets, canteens, lifts and site entrances.

44. Every effort must be made by employers to encourage personal hygiene and minimize worker to worker contact and all workers must co-operate in all necessary measures to achieve these objectives. These measures need to include:

- Promote regular hand washing with soap for at least 20 seconds. Employers must facilitate regular hand washing by providing ease of access/additional facilities where possible. Communicate to all workers where hand sanitizers are located and encourage their regular use.
- Promote good cough etiquette by sneezing your cough and sneeze, or cough into your elbow or shoulder.
- Avoid touching your nose, eyes or mouth.
- Provide hand sanitizer and/or hand washing facilities with soap in all site entrances and exits, hoists, amenities and areas/levels of the site.

45. Employers must ensure that workers have access to appropriate amenities. Employers should review and revise the number and locations of amenities, to reduce movement around the site.

46. Amenities need to include:

- Hand washing facilities (whether permanent or temporary), such as a wash basin, clean running water, soap and paper towels, placed in strategic locations to ensure employees can access them in a timely manner.
- Access to hand sanitizer.
- Tissue bins with touch-free lids (e.g. foot pedal bins).
- Thorough and regular sanitation.
- Appropriate waste management systems.

3.5 Shared tools, plant and equipment

47. Workers should avoid the shared use of tools, plant and equipment whenever possible. For example, deep saws, drills, grinders, ladders or elevating work platforms should not be used by more than one worker.

48. Where it is not possible to eliminate shared use:

- Provide cleaning products (e.g. alcohol spray or solution) where communal tools, plant and equipment are located.
- Keep cleaning products with tools, plant and equipment as they move around the site.
- Rental operators thoroughly wash or sanitize their assets before and after every use.
- Ensure all parts of tools, plant and equipment (e.g. including handles, levers etc) are wiped down before and after use.

49. The shared use of phones, desks, offices, computers and other devices should also be avoided. Where this is not possible, these items should be regularly disinfected.

3.6 Cleaning and Disinfecting

50. Cleaning and disinfecting of surfaces is to be conducted using cleaning products as per DHHS Cleaning and Disinfection guidelines to reduce coronavirus (COVID-19) Transmission – the specific guidance is available here:

- Cleaning and disinfection of amenities and meal areas must occur between work group breaks.
- Cleaning and disinfection of Personnel Hoists should occur at the end of each hoist operator shift.
- Implement regular cleaning and disinfection (minimum of twice daily) to 'Frequently Touched Surfaces', surfaces such as toilets, door handles, stair handrails, light switches, lift buttons, table tops.
- Additional cleaning/disinfecting on-site. There must be an increased frequency of industrial grade cleaning/additional cleaning/disinfecting on sites across all areas including particular emphasis on commonly touched/communal surfaces.

3.7 Personnel hoists

51. Workers using hoists and lifts may be at greater risk of exposure to coronavirus (COVID-19), because they are required to be in close contact with others and potentially contaminated surfaces.

52. Control measures to reduce the risk in personnel hoists should include systems of work, physical distancing, personal hygiene, PPE and cleaning.

53. It is acknowledged that not all hoists and lifts are identical in size or dimension, and have varying weight limits.

54. Where it is not possible to implement physical distancing measures in a personnel hoist, all other available control measures need to be used.

55. Control measures may include:

- Limiting worker movement between levels and floors on site, where it is possible and safe to do so.
- Reviewing which hoists are available for use on site and identifying if additional hoists can be used (for example where a partially occupied building is under construction, consider whether a residential lift be used solely for construction persons).
- Physical distancing of 1.5-2 m and hygiene systems to be followed when waiting for hoist, particularly on floors where worker volumes may increase during peak times (start, break, finish times). For example the ground floor, floors with meal or break out spaces and floors with bathroom amenities.

• Determine how many workers can use a hoist at any time (including hoist operators) taking into consideration the limited duration and additional control measures in these Guidelines.

• Mark out hoist floor, identifying:

- where workers stand
- what direction they are to face when in the hoist to avoid face to face contact
- sequencing of entering and exiting.

• Mark the hoist waiting area at each floor ensuring the physical distancing is maintained

• Regularly communicate and remind workers (e.g. through posters, digital displays):

- diagram of positioning of workers and sequence of worker entering
- not to touch walls/floors of the hoist
- advise the cleaning regime in place

• During peak periods have system in place to limit crowding of workers entering/exiting the work area. For example:

- developing a schedule for use of the hoist
- staggering what floors workers are to use the hoists. Hoist operators may be exposed to additional risk. They should:

• Be provided with PPE that protects them from worker to worker transmission and from touching contaminated surfaces (e.g. face shield or surgical mask/P2 respirator and gloves).

• Perform frequent hand washing with soap and water or the application of hand sanitizer positioned within the hoist.

• Where possible, change hoist operator every two hours into a different role.

3.8 Personal Protective Equipment (PPE)

56. Employers must provide information, instruction and training on the safe use, decontamination and maintenance of any PPE provided.

57. Any PPE provided needs to be practical for the work environment (e.g. allowing the necessary visibility and mobility) and properly decontaminated or disposed of at the end of every shift.

58. Employers should monitor and encourage correct use of PPE, for example providing information on posters and digital screens about:

- Washing or sanitizing hands before putting PPE on, and putting face protection on before gloves.
- Removing gloves before face protection, washing or sanitizing hands after removing PPE and decontaminating or disposing of used PPE safely.

3.9 Common areas

59. Common areas on sites such as the amenities pose risks, and these are reduced by ensuring the following measures are adopted.
60. The time spent in those areas must be limited so as not to breach time constraints recommended by DHHS.
61. Staggering of meal breaks and separation of work groups to achieve maximum personal space and reduce the number of workers accessing these areas at any one time consistent with the Government requirements.
62. Sanitization must occur between occupation of amenities by different work groups.
63. Spread out furniture to ensure physical distancing measures in common areas.
64. There must be an increased frequency of industrial grade cleaning/additional cleaning with specific emphasis on cleaning after each meal break in those areas.
65. Workers electing to minimize amenity access.
66. Staggered working hours must be considered on sites with appropriate consultation (consideration must be given to Construction Management Plans, and workers must be given adequate notice of a change in hours).

3.10 Inspections

67. During inspections of the sites everyone should ensure all measures are in place to ensure compliance. Employers and Health and Safety Representatives are encouraged to work together to assist in this important objective.

3.11 Travel

68. Adequate arrangements are to be made by workers to ensure their travel to and from work is conducted safely in accordance with Government advice, and that adequate sanitization facilities are in place for workers upon attending the work site and when returning to the work site during work.
69. Workers should ensure that for transport to and from work that they adhere to the hygiene and cleaning guidance, and the physical distancing.
70. Work vehicles that are shared should be regularly cleaned to ensure adequate hygiene and protection.

3.12 General Communication

71. Ensuring everyone is informed is fundamental to managing this pandemic and ensuring the safe operations of construction sites.
72. These recommendations have been developed to be communicated to all employees, workers and stakeholders. Everyone is urged to regularly promote and adhere to this document.

73. Site inductions should be updated to incorporate the latest information on coronavirus (COVID-19) potential risks and workplace specific controls that have been implemented such as daily screening, health checks and symptoms of coronavirus (COVID-19), staggered start, finish and meal times, good hygiene practices, and cleaning regimes and PPE requirements.
74. Toolbox talks should be regularly conducted, and workers are to be encouraged to put forward practical ideas for changing work practices to avoid the spread of coronavirus (COVID-19). Toolbox talks should also provide clarity to workers on leave arrangements for those that cannot work, and to encourage self-reporting and minimize the spread of risk.
75. Toolbox talks should also include updates from the responsible Health Officer as they occur and additional information on the severity of the pandemic and the importance of physical distancing at toolbox meetings.

3.14 Other measures

76. Construction sites are diverse and vary in complexity, employers must apply a risk based approach and implement reasonably practical controls (as far as the environment and specific hazards at each construction site. In addition to the aforementioned measures and controls mentioned in this section, employers should consider other measures for implementation such as:
 - using alternatives to face-to-face meetings where practicable;
 - reducing the length and size of meetings, especially for critical employees; by requiring same or all to do it;
 - consider off-site collaboration;
 - ensuring working from home arrangements are enabled where feasible;
 - Structuring management teams to ensure continuity in the event all team members needing to be reduced or quarantined at times.

3.15 Vulnerable workers

77. It has been identified the following groups of people as vulnerable workers in relation to coronavirus (COVID-19):
 - people over the age of 70;
 - people with chronic diseases (cardiovascular disease, diabetes, bronchial asthma and other respiratory diseases)
78. Where practical, reasonable action should be taken to minimize our vulnerable workers from assuming higher risk roles.

4. Summary of recommendations and responsibility

Table of Summary of recommendations and responsibility

Activity	Responsible for implementation
To provide employees with the information about the work safety procedures and prevention of virus spread (guided by the recommendations of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia and IRLI L. Sakvarelidze National Center for Disease Control and Public Health).	Employer
To place ads in the workspace about the COVID-19 and its preventive measures defined by the IRLI L. Sakvarelidze National Center for Disease Control and Public Health).	Employer
To ensure maximum use of remote work in relation to those employees who can perform work remotely (administrative personnel).	Employer
To put matings at the entrance of the lounge room, dining room, with the relevant sign of indication.	Employer
To ensure hand washing in the workspace with appropriate soap and other hygiene products. In case of inability to wash hands, to provide with at least 70% alcohol-based hand cleaning liquid).	Employer
To place hand sanitizers and the instruction for their proper use in a prominent place.	Employer
To ensure that employees have access to hand sanitizers and know how to use them in accordance with the relevant instructions.	Employer
To provide information to all staff and contractor, as well as cleaning staff, on appropriate preventive measures to avoid the spread of coronavirus in the work environment.	Employer
To train the employees on the proper use of personal protective equipment and its subsequent storage / disposal.	Employer
To provide employees with the necessary personal protective equipment (overall, special shoes, helmet, gloves, medical mask) based on the specifics of their job and establish control over their use.	Employer
Periodically, several times a day ensure natural ventilation of indoor spaces / closed.	Employer
Periodically ensure disinfection of workplaces and frequently used equipment.	Employer
To keep equipment in order at the construction site. To ensure the prompt cleaning of workplaces and removal of construction waste.	Employer
To ensure placement of closed containers for the disposable napkins and other hygiene waste used by both employees and visitors.	Employer
Follow the rules of hygiene at your workplace.	Employee
Carry out the work process in accordance with the Emergency Action Plan defined by the employer / work safety manager.	Employee
Avoid shaking hands and direct contact with others (touch, etc.) while saluting.	Employee
Avoid gathering, the work of more than 10 people on one work platform at a safe distance (less than 2 m) is not recommended.	Employee
When performing the work, make full use of the personal protective equipment provided by the employer.	Employee
Clean the workplace and the tools and equipment used during the work process with disinfectants.	Employee

Thoroughly wash your hands with soap and water before and after eating, as well as before and the bathroom. Dry your hands thoroughly after washing.	Employee
Use alcohol-based hand sanitizers in case if you are unable to wash and dry your hands.	Employee
Keep a safe distance (not less than 2 m).	Employee
Cover your mouth with clean napkin or elbow when coughing and sneezing and then throw the used disposable napkin in the trash.	Employee
Avoid touching your eyes, nose, or mouth with your hands.	Employee

ANNEX I: SIGNED LIST OF TRAINING PARTICIPANTS, 10 JULY 2021

Education Sector Training Course Form

Location: _____ Date: _____
 District: _____ Province: _____

Name of Institute: _____
 Name of Trainer: _____
 Name of Participant: _____

List of Participants

No.	Name	Gender	Signature
1	Paul Mwanika	Male	[Signature]
2	Rita Mwanika	Female	[Signature]
3	M. M. Mwanika	Male	[Signature]
4	[Name]	[Gender]	[Signature]
5	[Name]	[Gender]	[Signature]
6	[Name]	[Gender]	[Signature]
7	[Name]	[Gender]	[Signature]
8	[Name]	[Gender]	[Signature]
9	[Name]	[Gender]	[Signature]
10	[Name]	[Gender]	[Signature]
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29	[Name]	[Gender]	[Signature]
30	[Name]	[Gender]	[Signature]